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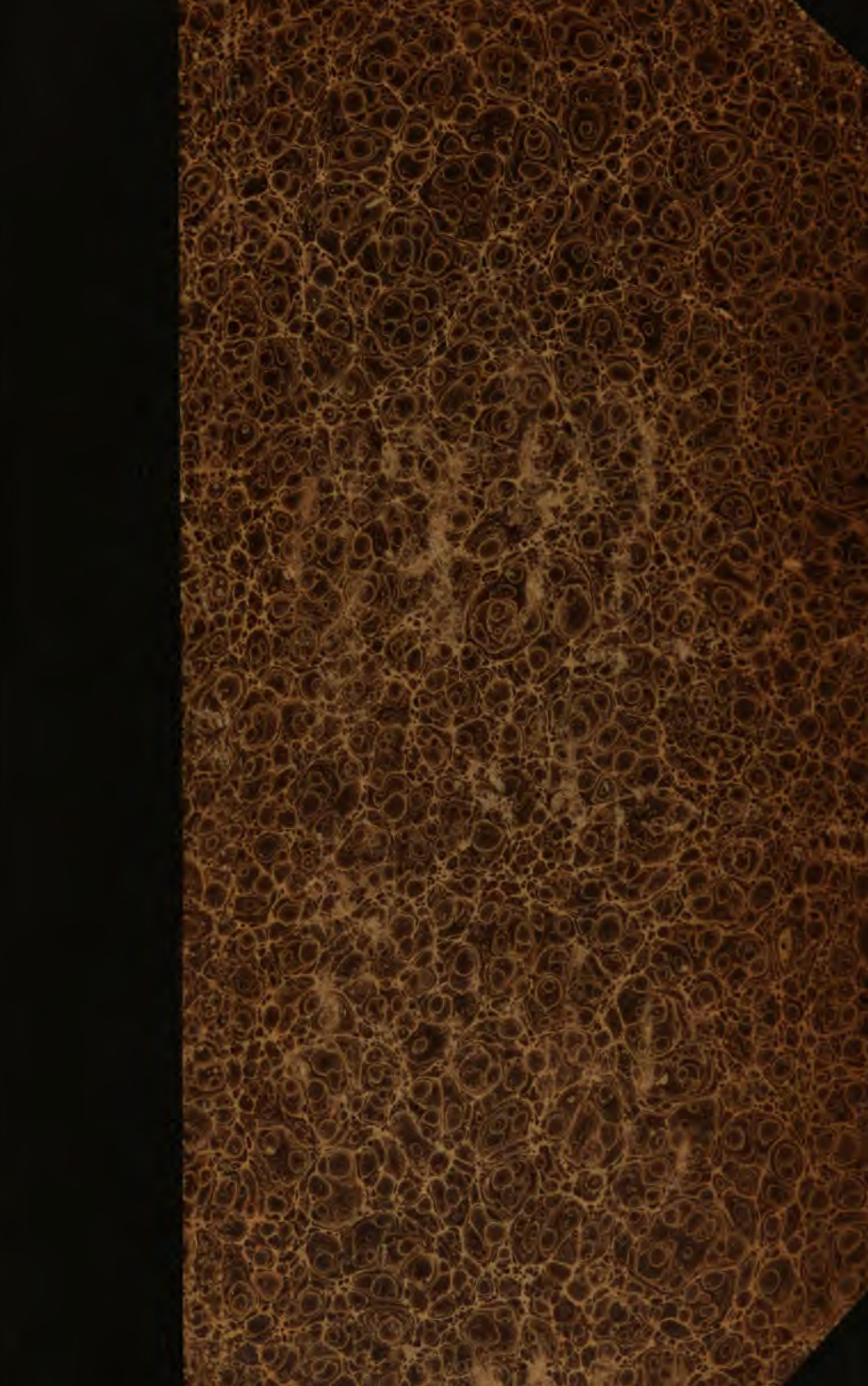
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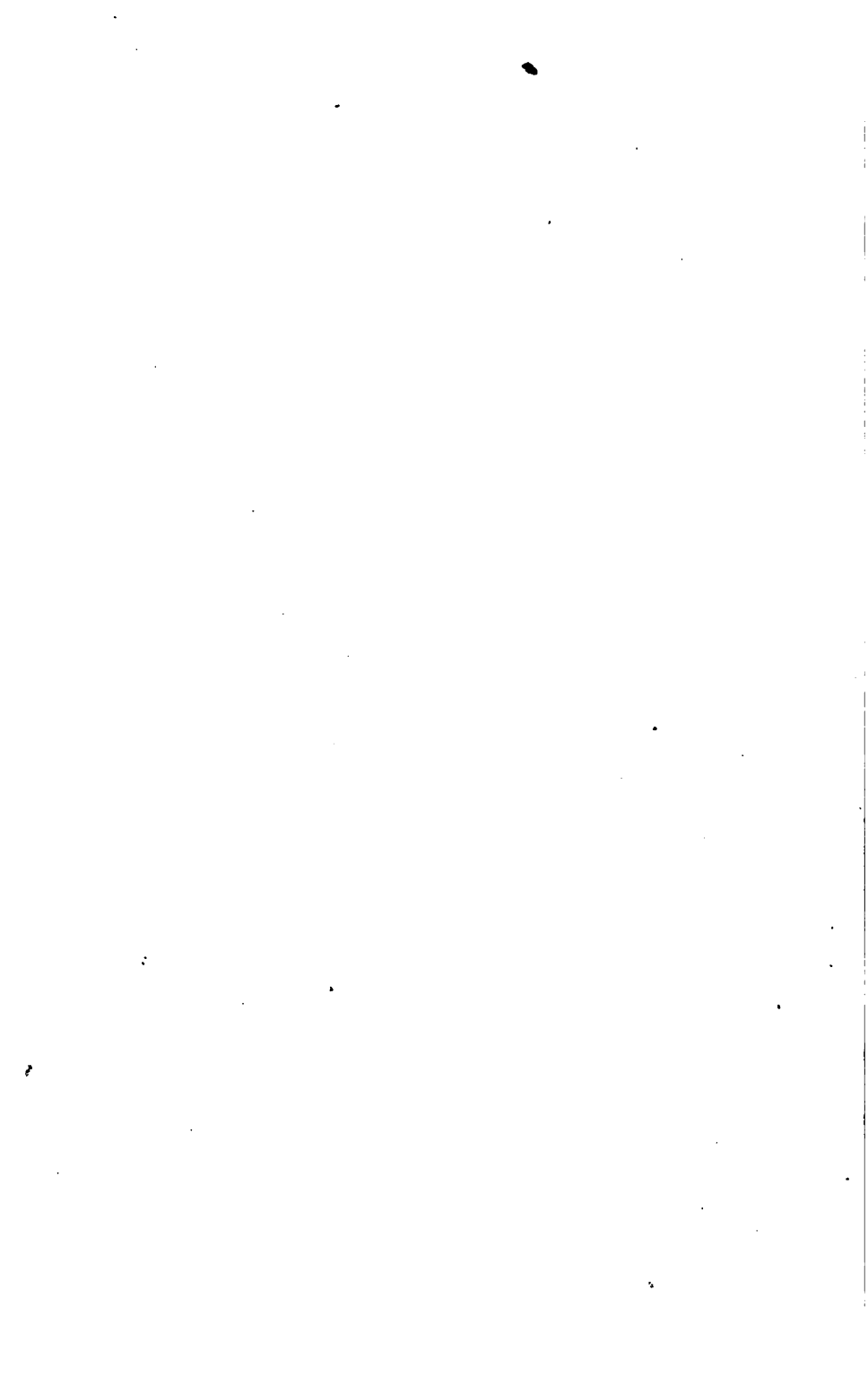
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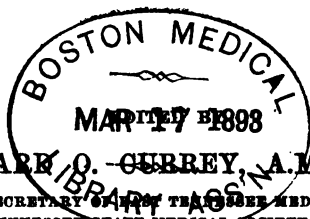
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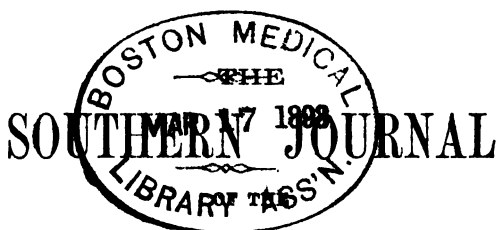
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MEDICAL AND PHYSICAL SCIENCES.

JANUARY, 1857.

PART I.

ORIGINAL MEMOIRS AND CASES.

ART. I.—*A Sketch of the Geology of Tennessee. Zinc, (Continued.)* By RICHARD O. CURREY, M.D., Knoxville, Tenn.

Process of Manufacturing.—Regarding these deposits of Zinc as valuable, we will append a few suggestions as to the modes of extracting the metal from the ore.

The process for extracting the calamines differs from that for the blendes.

The furnaces used for the former are known as Watts, Dillgers, the Liege and the Silesian.

The ore is broken into fragments, and the impurities of iron or lead separated as perfectly as practicable. The ore is then calcined, which drives off the carbonic acid and renders it friable. It is then carried to the powdering mills, and mixed with charcoal, and being placed in earthen retorts, is subjected to a strong white heat. This reduces the oxide of Zinc, expels the carbonic oxide gas, and the metallic Zinc condenses in allonges fitted to

the retorts. The melted Zinc is then run into rectangular moulds in pieces weighing from 60 to 70 lbs. (Regnault.) The ingots are again melted in a reverberatory furnace, and run into moulds of a suitable size for rolling. It is then passed through heavy rollers which produces the sheet Zinc.

The blende or sulphuret, has first to be roasted in heaps to drive off the sulphur, and the friable ore is then subjected to the action of flame in a reverberatory furnace by which the oxidation of the Zinc is completed. After which the process is similar to that for the calamines.—(Regnault.)

Uses.—Sheet Zinc is used for many purposes in the arts. It is very durable as a roofing material for houses—but its principal application is in the manufacture of brass, by forming an alloy with copper, and into white Zinc paint. These two ores are of sufficient importance to attract attention to the deposits of Zinc to be found in East Tennessee.

The construction of a smelting furnace at the copper mines of Polk county, would be an additional inducement to test the value of these Zinc ores. And should the expectations concerning them be realized, there will be necessarily instituted a series of manufacturing operations which would prove of immense importance to our State and to the South.

The extensive use which is now made of Zinc paint, its durability, as well as its fine polish, renders even the *probability* of value in our Zinc deposits as deserving of attention. Zinc paint is a white oxide ground up in oil, and it may be readily seen that the process which consists in freeing the ore of its impurities and reducing it to an oxide instead of a metal, is that by which a dry paint is obtained. On plates of sheet Zinc a whitish coating is

frequently found, which is an oxide generated by the action of atmospheric agencies upon the metal. So that in obtaining the oxide, the process may stop short of converting the ore into metallic Zinc, or it may take the metallic Zinc and re-convert it into an oxide.

M. Leclaire, of Paris, the discoverer, sold his patent right to the Vielle Montagne Zinc Mining Company, who alone have the right to manufacture by the Leclaire process in Europe and America.

In this country we have the New Jersey Zinc Company, and the Pennsylvania and Lehigh Zinc Company. They have been in operation for several years. The former company, in 1853, manufactured 1805 tons, from which they netted a profit of \$90,592 16, and paid \$42,944 50 in dividends.

LEAD.

Considering the number of localities in which Lead ore is found in Tennessee, and the readiness with which the metal is extracted, and its uniformly high price, as well as demand, it is surprising that they have not received a greater share of the attention of capitalists.

In nearly every county in the Eastern division of the State, these ores are found in greater or less quantity associated with the ores of Zinc, and in some localities containing traces of silver.

The counties of Carter, Jefferson, Grainger, Anderson, Claiborne, Roane, Blount and Marion in East Tennessee, and of Davidson and White in Middle Tennessee, have yielded fair specimens, the profitableness or value of which depend only on the quantity found.

Dr. Troost in his Reports describes the deposit in Davidson, and speaks highly of its prospects. The same vein

may be traced westwardly, exhibiting an outcrop in the bed of Brown's creek, near the residence of Judge Humphreys. Other outcrops are found to the east of Haysboro', where it was originally opened.

In East Tennessee, the deposits are said to be of good quality. Those which I have had the pleasure of examining personally, and also those from which large specimens of galena have been presented to me, afford good indications.

In Carter, about 10 miles east of Elizabethton; in Jefferson, near New Market; in Anderson, on Hind's creek; in Claiborne, on Powell's river; in Roane, from Dr. Grant's deposits; and in Grainger 6 miles to the north of Rutledge, are, so far as I am informed, our best localities. There is said to be a cave in Jefferson county, near Red Sulphur Springs, in which the stalactites are beautifully encrusted with crystals of Zinc and Lead.

The principal ore of Lead in Tennessee, is the *sulphuret*. It differs however, in external appearance. The Grainger and the Roane ores are somewhat crystallized in cubic crystals—while the Carter, Jefferson and Claiborne ores are granular. The former are distinguished by the name of galena, and the latter are most generally argentiferous.

Carbonate of lime, and heavy spar, are the most usual associated rocks.

As yet, only imperfect explorations of these Lead deposits have been made, the most extensive being carried on in Powell's valley. Here the ore has been reached by means of shafts, and found to lie in veins, between the fissures of the slightly inclined limestone strata. These explorations were made as early as 1848, and have been renewed at times, still giving indications of ultimate success to the patient explorer.

The following analyses of Lead ore were made by Dr. Troost, and presented in his Ninth Report on the Geology of Tennessee :

He says, page 34. A specimen taken from the bed of Powell's river, given to me by Senator Thornburg, was composed of :

Lead	75.00
Zinc	11.00
Sulphur	12.50
A trace of Silver and loss	1.50
	<hr/>
	100.00

Another from a ridge near Powell's river,

Lead	40.00
Zinc	29.00
Sulphur	15.00
Iron Oxide	6.00
Carbonic acid and Silica	10.00
	<hr/>
	100.00

A third specimen, from same vicinity,

Lead	58.00
Zinc	15.00
Carbonic acid	6.00
Sulphur	11.00
Iron Oxide	18.00
Loss	2.00
	<hr/>
	100.00

I will remark in conclusion, that when galena is found alone, it generally contains 89 per cent. of Lead and 13 per cent. of sulphur, also containing, as in the Elizabethton and New Market ores, a trace of silver. And where galena is found thus, alone, the value of the deposit depends solely on the quantity of the ore.

COPPER.

Considering the very recent date since the first discovery of Copper ore in Tennessee, the rapid developments following thereupon afford another striking in-

stance of the readiness with which capitalists will enter upon such explorations when once convinced of their importance and value.

Copper District.—The range of mountains along the eastern boundary of Tennessee is composed of the metamorphic series of rocks. They possess a N. E. and S. W. course, the strata dipping at various angles, from 45° to 90° to the S. E. It is in this range of mountains that the Copper district of Tennessee is situated. Pursuing this same general direction beyond the limits of Tennessee, the discoveries of Copper have been made in Carrol and Floyd counties, Virginia, and doubtless it is the same mineral band which extends on to Maryland and Pennsylvania. South-westward the band may be traced through the interior counties of Georgia even to the State of Alabama. There is a striking resemblance in the rock strata throughout this entire mineral region. In the Unaka mountains, between Tennessee and North Carolina, the band is found to pursue a tortuous course, only here and there presenting itself on the Tennessee declivity.

In North Carolina the metamorphic rocks underlie the older primary strata, while in Tennessee they overlie the more recent silurian or fossiliferous rocks. These metamorphic strata consist of micaceous slates, quartzose sandstones, chlorite slates and primary limestones, interstratified with beds of porphyry, cherty limestones and conglomerates.

It is in these metamorphic slates, especially between the micaceous slates and quartzose sandstones, that the veins of Copper have been found. They are indicated by the outcrops of *gossan*, which is a porous oxide of Iron, tarnished, to a greater or less degree, with thin films of some ore of Copper—most generally the carbonate.

History of the Discovery, and the Progress of the Mining of Copper at Ducktown.—Having thus pointed out in a few words the general outlines of this great mineral zone, we shall enter upon a particular account of the early mining operations, and the success attending them in this new and productive field.

In the South-eastern corner of Tennessee, a region sparsely inhabited, and, on account of its ruggedness and inaccessibility, scarcely ever visited, the discovery of Copper was made.

During the Gold hunting excitement of a few years ago, which was vigorously prosecuted in Northern Georgia, Western N. Carolina, and the mountain districts of East Tennessee, almost every rill and branch were traced to their very source, and every alluvial deposit on their banks was washed and panned in search of this precious metal.—These explorations were vigorously prosecuted from 1830 to 1836, and during this period every part of the present Copper region was carefully examined, not only by the practical operator with his pan, but the Legislature of the State directed its Geologist, Dr. Troost, to visit this district and report thereupon at its next Session. The result of these labors is embraced in his TENTH Report. The labors of that survey were mainly directed to the solution of the question of the value of the *gold* deposits, and consequently the only end attained was “that gold is not so abundant in the Ocoee District as is generally supposed;” but of this we shall give an account when we enter upon the consideration of Gold.

Passing through the country near Ducktown, Dr. Troost noticed at several places masses of *hydroxide of iron*—which he pronounced of good quality, and possessing value, “especially in this country which is not susceptible

of cultivation, and where there is an inexhaustible abundance of wood." The sequel of this description will show that this was the out-cropping of the valuable deposits of Copper at the same locality.

Attention being thus directed to this point by the foregoing report, the foundation of Zion iron works was laid in 1849 by Mr. Duggar, an enterprising iron master from Johnson county. He erected a small furnace for making iron on the banks of Potato creek, where the ore was abundantly found. This is the site of the present Cherokee Copper mines. The very high price of iron all through the mountains was such as to warrant a paying investment to Mr. Duggar.

The ordinary price was from eight to nine cents per lb. In March of 1847, Mr. Duggar purchased eighty acres in section 21, being a portion of the land at present belonging to the Cherokee mine, for \$20 and 200 lbs. of Iron, which latter payment was to be made when the contemplated forge should be in operation. A dam was thrown across Potato creek, and the work of the forge reached through the whole season, so that it was not until April of 1848 that Iron was produced from this establishment. At first the ore promised much. It looked well, and welded in the loop very readily. It would draw well until it cooled to a cherry red, then it would break across and in pieces. If heated to a white color, and immersed in water, until cold, it would show a very thin Copper precipitate on the surface. Sometimes the forge flame had a greenish tinge. After many trials to make a good merchantable Iron from the ore, the proprietor of this establishment began to examine the Iron out-croppings in the vicinity with the hope that a better ore could be found. Trials were made with no better success from

ore up Potato creek, and from the same range in Georgia. At length ore was found about fourteen miles across the strata to the Southeast in Georgia, capable of working into a fair quality of Iron. This ore was hauled to the furnace at a cost of \$5 per ton—the cost of coal being 23 cents per bushel. This forge continued in operation about two years, making in that time nearly five hundred tons of Iron, which supplied a large country, and considerable of it found markets at Dahlonega, Elijay, and the neighboring towns.

A single forge and tilt-hammer, with a water-blast made up this establishment, which, with the dam across Potato creek, cost about \$700.

We go back a few years in our sketch to note another peculiarity in the development of this mineral region.

In August of 1843, a Mr. Lemmons, who had been operating on this creek, was induced, by some singular appearance in the earth, to make some attempt to find the precious metal on a small branch on section nine, which falls into Potato creek. This is now the location of the Hiwassee Copper Mine. A small opening was made, and the washings were very successful. In a reddish brown and blackish decomposed rock, the supposed gold was found in large crystals of a deep rich red color. The fortunate discoverer toiled without rest the whole day long to secure the enormous treasure fortune was offering him. At a late twilight hour the precious metal was gathered up and packed; the sleeves of the discoverer's coat was filled, and secured at the cuffs by a hickory-bark withe. This greater fortune was so unexpected that nothing larger than a goose quill was at hand in which to store the gold, so that the coat was taken. Mr. Lemmons, slinging his treasure across his shoulder, moved

homeward, leaving his pan concealed in the bushes ready for another day's labor. On reaching his rude cabin, whiskey was sent for to help in the rejoicings, and mirth and joy resounded over those low mountain tops long after midnight, so that another sun found not a ready laborer. The next day the gold was again examined, and lo! its color was changed from the bright red, which was thought a sign of great richness, to a dark, dingy brown. This brought fears, and night stole the fortune of the day.—The gold proved to be red oxide of Copper in crystals. This event produced some excitement; but soon passed away, and no one knew the nature and extent of the metal thus discovered, or even its value. Some further work was done by Mr. Grant, who found several rich specimens of native Copper. This section of country, and the workings so far as were opened, was examined by a Geologist of this State, who gave a very unfavorable report of the district. Soon after this examination, the property changed owners, and the company, who purchased, explored the ground a little farther by cutting a trench up the branch, where Lemmons had found his gold. This work exposed to view the black oxide of Copper, which was not known to the persons whose enterprise had thus led them to embark in mining. Several tons of ore were broken and thrown out of the trench. A box of samples, including specimens of the rocks in the neighborhood, was made up and sent to Nicholas Haight, New York, for examination. This box, however, contained but a small fragment of ore, which was thought by the parties who opened this trench to be nothing but a dark brown and blackish valueless stone. The report upon these samples was that a single dark fragment produced 11 per cent. of Copper, and that the great mass of specimens were made up mainly of Iron.

This unexpected report discouraged the present operators. Their ardor was checked, and all mining operations suspended when a report of the "samples" became known. The season passed away, and in the last of April, 1847, a German, by the name of A. J. Weaver, from the District of Werner, saw the trench and informed the parties interested that the black rocks, as they were here called, were rich Copper ore. Mr. Weaver began the first mining under a lease, paying one fifteenth of the gross products of the mine. This arrangement was really the beginning of mining in this locality. On the first of May, 1847, work was resumed in the old trench, and ninety casks were shipped to the Revere Smelting Works, at Port Shively, near Boston. This ore was made up in two lots. No. 1 was worth $32\frac{1}{2}$ per cent., and No. 2 was sold at $14\frac{1}{2}$ per cent. Mr. Weaver was in Boston at the time of the sale of the ore, and early the next season he left for Mexico, to explore some mines of silver, but fell by the Indians while crossing the plains. I copy a portion of his letter, dated Fort Independence, Mo., April 15, 1848, and addressed to one of the company who leased the mine to him :

"Before I left New York, I received such information from several sources, and especially from a German, who had just returned from the mining districts of Mexico, as has led me to change my plans, and attempt to reach the country of Chihuahua, by the way of the Plains. The accounts are creditable and very flattering for the mining of silver in that part of Mexico, and I thought to learn more of this region from the Santa Fe traders, who make Independence a point of traffic. I shall make gold-mining my first work. I shall have to close my engagements with your company; but should I be so fortunate as to return in the autumn, it is my intention to secure the help of my friends in Boston and work your mine. This I proposed to do this season, but the prospect of richer metals in Mexico has led me for a few months away.

"Last fall I took from your mine to Boston ninety casks of ore. Three casks were very poor, of a reddish clay, so that they were not sold. The balance were put in two lots. No. 1, of 18,750 lbs., deducting water, was worth 32.5 per cent.; No. 2, of 12,460 lbs., was worth 14.5 per cent., Copper."

About this time, in May of 1849, a gentleman from the west, came to the company, who began the original trench, and of whom Mr. Weaver leased, stating that he represented English capital, and desired to make investments in mineral lands, and accordingly a contract was made upon the premises, which only held the property up from all farther development. In this condition it remained until about the first of April, 1851, when notice was taken of the place, and several persons sought this region for a place of investment and enterprise. The following letter, from a very enterprising and zealous laborer in this field of usefulness, from Jefferson county, will show the manner in which a new country has been improved. This letter was written at the request of Dr. Charles A. Proctor, and forcibly illustrates the self-denial which the early explorers of the Copper region underwent in developing the rich treasures since found in those mountain fastnesses:

To Dr. R. O. Currey and C. A. Proctor: DUCKTOWN, 1855.

GENTLEMEN:—I came to Ducktown in 1849, scouting for Copper, and found some five or six tons in a cabin, ten feet square, on the property now known as the Hiwassee. I found the country unexplored; the School section, a property now worth a million of dollars, attracting little or no attention. Sat down in the woods to mature some plan to open and control the section. I owned, at the time, one twenty-dollar bill. After three hours' reflection, resolved upon calling a meeting of the citizens of the township, and make a speech explanatory of the value of the School section, and the importance of leasing it for mining purposes. Told the people that as soon as the mines could be opened, their condition would be improved, and that civilization, intelligence, comfort and wealth would be the inevitable results. At the conclusion of this remark, a speaker arose in the crowd and informed me that a large portion of the inhabitants had come here to get away from civilization, and if it followed them, they would run again. After the speech was made, drew up a memorial to the Legislature praying the passage of a law authorizing the Commissioners to give a mining lease on the School section. The memorial was signed by a majority of the citizens, and on personal application, the law was passed, and under it the lease was taken. In May, 1850, commenced mining in the woods.

In the same year, sunk two shafts, and obtained Copper from both of them. The excavations made did not exceed twelve feet—at that depth the Copper being found. Commenced mining at the Hiwassee mine in 1851, in connection with S. Congdon, the agent of the Tennessee Mining Company; built a double cabin, and taught Sabbath-school in the kitchen end of the establishment, aided by young Mr. Walter Congdon. We were tantalized by one of the miners, who exclaimed, on a certain occasion: "Good God Almighty! does that old mud-sucker think he can worship Jesus and work a Copper mine?" While this same miner was planning a way to pack Copper ore out of the mountain on mules, I surveyed the Ocoee river, and determined to make a road eighteen miles through an impassable desert. I had no means but a strong determination to surmount every obstacle. Going to a Methodist camp-meeting, I obtained permission to make a road-speech, in the recess of divine service. The speech over, we took up a collection, principally on credit and payable in trade. This, however, served the purpose, and on the 6th of October, 1851, the work was commenced. On the first day, three hands worked; on the second, two; on the third, worked *alone*—public opinion, strong and powerful, being against the enterprise; on the fourth day, hired a dozen Cherokees. Thus began one of the most important projects in the State—which was consummated in two years, at an expense of about \$22,000. The Tennessee Company came early to help in the enterprise—but the Hiwassee held back till fourteen miles of the road was passable for wagons. At the close of the first year, Rob't. McCampbell was employed as the engineer of the road, after which I again turned my attention to mining.

(Signed.)

JOHN CALDWELL.

This road, of which Mr. Caldwell writes, is the only outlet for carrying the production of the mines to market. It is constructed along the winding banks of the Ocoee river, and is 40 miles in length. The most picturesque scenery to be found in the State is presented along this route. From Clouds, where the road begins its winding course along the bank of the Ocoee, for a distance of 20 miles, there is an ascent of nearly 1000 feet, which makes an average of 50 feet to the mile. At no place is the grade of the road ten feet above the surface of the river, and hence there is presented to the traveller at every turn in the stream, new scenery, and apparently on a grander scale. Cascades of every variety are presented. At one time in a narrow channel, where it seems the stream

has cut through a mountain, immense masses of stone dam up the impetuous torrent, over which it leaps in a deafening roar. Then at another point, where a rapid curve is made, the opposite shore presents a vast amphitheatre, rising 1,000 feet from the water's edge by gradual steps, while just above the beholder, a tall overhanging cliff seems threatening with instant destruction. On this cliff, the genius of the Ocoee may be said to preside, and the feathered songsters in the opposite amphitheatre chaunt their anthems beside the grandeur of the surging waters. Here, as we ascend, is another point so calm, so smooth, that in the quietness of its festooned island, may be imagined a home for water nymphs. Thus alternately, the road passes by the calm and the boisterous of this picturesque stream. Although for twenty miles it is making its meandering way underneath its northern bank, yet an air line from Clouds to the mines, is probably not more than half the distance; but it is only such a line as the strong winged eagle can pursue.

At the time of my visit, I made a geological section of this route which I will briefly describe—extending it beyond the mines through Angelico Gap, to Murphy, North Carolina.

Beginning at Ducktown, for one and a-half miles as we go westward, we pass over alternate layers of mica slate, quartz and sandstone. At Brush creek, three miles, a blue slate is succeeded by sandstone thoroughly impregnated with particles of arsenical iron, similar to the rock taken from the Western Tunnel at Ducktown. The thickness of this rock is very great, sometimes constituting of itself heavy layers, and at others, presenting the appearance of veins penetrating a greyish white sandstone. We do not lose sight of it till we have reached, in the wind-

ings of the road, seven and a-half miles from Ducktown. To this slate succeeds. At nine miles, there was found a mass of gossan, which was succeeded by sandstone. To this came a blue slate, succeeded by an immense stratum of a porphyritic rock filled with rounded quartz pebbles. The base was evidently softer than the pebbles, presenting where exposed for any length of time to the weather, a porous character, the cementing substance being washed out, and leaving the pebbles adhering by a slight contact. At the 12 mile post, was a slate; at 13, a sandstone, and at fifteen a chlorite slate with cubes of iron pyrites, such as I had seen at Coqua creek in the Gold region. It here presented high overhanging cliffs. At 17 miles we had the same stratum of porphyry with quartz pebbles, and at eighteen and a-half miles was a blue slate twisted and contorted into knots of all conceivable shapes and sizes, interstratified with irregular veins of a reddish colored mineral.

At Clouds, 20 miles, a shaft had been sunk and a tunnel opened, through a grayish micaceous sandstone, and at Guerins', seven miles south of the river, another shaft had been sunk through greenish chlorite slate.

Beginning at Ducktown again, and going eastward into North Carolina, we notice at Congdon's, the *gossan* underlaid by a reddish sandstone, over which lies the mica slate, of a whitish and reddish white color. This is also the basis of the Hiwassee and Isabella mines, as well as others in this vicinity. Between these mines and Angelico Gap, the boundary lines of the States of Tennessee and North Carolina, the character of the rock strata and the general surface of the country, consisting of rounded dome-like hills and ridges, are altogether similar. No remarkable outcrop of gossan was found east of Isabella mine, but frequently the sandstone assumed a highly ferruginous character.

Reaching the summit of Unaka mountains, at Angelico Gap, another rich repast was spread before me. At my feet, but a few miles distant, lay the rich mining region of Ducktown, the whole country thronged to overflowing with ardent speculators, while farther to the West rose the towering peak of Frog mountain. To the East, the mountain heights and wide spread valleys of the old North State, presented such a scene as I had never before beheld. My thoughts involuntarily turned to the struggles of the revolutionary sires who battled hard against foes without and tories within, and as I gazed thus alternately upon the birth-place of my ancestors, and my own loved Tennessee, I felt the strength of the tie which he feels who dearly prizes the home of his birth.

Beyond the Unaka mountains the strata possess some similarity to those in Tennessee, the only difference being in the purer metamorphic character which they acquire. At Murphy, a stratum of primitive limestone, of a snow white color, was examined, which has been noticed elsewhere.

The discoveries at Ducktown led to an examination of this whole region. Many failed in their haste to be made rich, others *hit* upon lucky spots—and localities yet remain undeveloped, teeming with treasure to the fortunate adventurer.

[TO BE CONTINUED.]

ART. II.—*An Address delivered before the East Tennessee Medical Society, at its Semi-Annual Session, 1856.* By SAMUEL PRIDE, M.D., of Maryville, Tenn.

In the fulfillment of the appointment of your society, I appear with much diffidence before you to-day, growing out of a conscious inability to perform the duty assigned me, as it should be, and because moreover I am fully sensible, that others of far superior advantages, could have been selected for so important an occasion. But the selection, doubtless, has been made, more out of an undue respect for a lengthened pilgrimage in my professional career, than for any striking illustrations entitling me to such distinction.

If an humble membership in the profession, participating in its active duties for a period of near the third of a century, could lay claim to a corresponding distinction, then I might hope in some respectable manner to fulfill my present obligation. That circumstance however inspires the hope, that the observations and experience that should result from reasonable attention during such a period, will enable me to present such reflections as may prove acceptable, and to some extent profitable on the present occasion.

It is not my purpose to present anything new or peculiar; but rather to renew and enforce *the obligation that rests upon the profession in the observance and practical illustration of those excellent principles and precepts that are laid down in the ethical codes of our medical organizations and writers*, for the regulation and government of the profession. This subject I am aware has been ably handled, and its principles fully elaborated, by our wisest and best men, and condensed and systematized, and now constituting a prominent position in our medical literature, so that no intelligent physician need plead excuse for want of light on the subject, or apology for departures in practice from the excellent precepts, and binding moral and professional obligations.

Neither is it my purpose to dissent in any manner from the wholesome rules laid down by our National Association for the

regulation of the practice and government of the intercourse and professional conduct of the faculty. Far otherwise. In that excellent code, is plainly indicated a system of general principles, constituting rules of action, which it should be the study and ambition of every one, who aspires to the noble position of a medical practitioner, to observe and yield a cheerful acquiescence; and which if permitted to have their legitimate effect and proper influence, would enable us to obviate many difficulties, and place us, as a profession, upon that proud and enviable position of independent action, to which the humane objects of our pursuits should entitle us to aspire. The flagrant deviations, often painfully witnessed in this regard, has furnished the grounds and apology for the remarks intended to be submitted, and to which your attention is respectfully invited.

Before medicine had assumed the proportions of a regular science, and during the period of its dark ages, when its practice was confined to the management of priests and ignorant astrologers, and while it rested principally for its maintenance on superstition and the credulity of the eye, there seems to have existed no conflicts of opinion nor rivalries for distinction at the expense of the harmony of competing aspirants. It is true that but little credit is due to its votaries for their efforts in absolving it from the accumulated ignorance, and absurd rubbish that enveloped it in mysticism; but nevertheless, harmony and the kindest sentiments prevailed, and a disposition alone to benefit the afflicted, without regard to personal considerations to themselves, seemed chiefly to characterize their philanthropic efforts. But to the period of increased intelligence, closer observation, a more practical and juster experience, and the development of more rational and accurate scientific opinions amongst the professions, seemed to have been reserved the first unenviable intimations of those personal exasperations that are unfortunately so frequently to be met with in the active employments and duties of our profession.

To that close observer, and, in his day, accurate analyzer of the mysteries of nature, possessing a mind active, penetrating and intuitive and learned in all the wisdom of his age, though

himself the prince of quacks, while we may yield the meed of admiration for his genius, and enoble his example for the impetus he may have imparted to the improvements of his profession, yet the drunken vagaries, and impious blasphemies, and unjust, illiberal and uncalled for denunciations of PARACELSUS towards his predecessors and cotemporaries, are well calculated to destroy the respect and veneration we would otherwise entertain for his superior advantages or attainments, or confidence in his "immortal catholicon" and the self-conceited endowments claimed in his "*Paragranum*" for the down of his "bald pate," the "learning of the buckles of his shoes," or the experience of his "grey beard." He, though falling a victim to the excesses of his debaucheries and profligate life, would almost seem to have occupied the attitude of a sort of professional progenitor, as the genius of evil and mischief to his successors. Many, I regret to admit, since and now, who in other respects are ornaments to literature and skill in their profession, yet in that respect imitate the example and practice of that illustrious and ill-fated individual.

When we contrast the polite interchanges of our profession with that of some of the other learned professions, the difference in their favor in this particular is striking to a remarkable degree. Gentlemen of the law or of divinity, often differ widely in their professional opinions about matters involving property or the rights of persons, or, as to the tenets of religion, involving the vastly greater concerns of eternity, and yet the utterance of those opinions is not regarded as implying any personal disrespect for each other, or to be viewed in the light of a breach of the courtesies of gentlemen. Though we sometimes witness in their professional engagements, heating and exciting conflicts of mind in the legal arena and elsewhere, where for the moment the belligerents would seem to be wrought to the extreme point of angry and excited exasperation, yet, upon the final arbitrament of the judicial conflict, the drama ceases, and the antagonising parties the next moment are found embracing each other in fraternal professional confidence. Not so, however, with our more inflammable and impassioned temperaments. Difference of opinion in

relation to a professional point in medicine is too commonly regarded as the *sine quâ non* of perpetual hostility and nonintercourse, unless healed by retractions, explanations and acknowledgements, in which one or the other party is to be esteemed by the other as having suffered in his honor or veracity.

One is sometimes led seriously to reflect upon the probable causes that constitute so great a difference in the etiquette of the different learned professions. They have all been trained in early life by the same code of morals, traveled the same highway to science and literature, and subjected to similar restrictions and subjugation of parental influence, and alike subject to the obligations of the high claims of piety and the retributions of punishment. Why, then, is it? Can it be attributable to the divergent influences of their respective professional studies? Or shall it more properly be ascribed to the estimate by which our opinions may be held and regulated by the public, or the influence it may exert in shaping our destiny and medical standing in the community. I am fully aware none should be so dead to self-respect as to be insensible to a high and well-merited appreciation of public confidence and regard. But is it reasonable, right and proper, that the urbanities of gentlemen or the true amities of professional dignity should be sacrificed for the attainment of so fleeting a gratification? Is it true that our surest and most abiding professional popularity and reliable skill and success in practice are dependent upon the senseless acclamations of the *vox populi*? If so, then, he who can command the largest amount of obsequious subserviency to their gracious regard is best entitled to their confidence and patronage. Such a course may meet with an ephemeral and short lived success; but it can never serve as a basis or the evidence of a well-cultivated medical education, or reliable assurance of skill and competency in the management of the more complicated and difficult forms of disease, or furnish the solid pedestal of true greatness. And further, what does the physician care for all those dazzling and attractive, but hollow honors, if he is in the possession of the higher qualifications of science and skill in his profession? Without effort, the former will be his inevitable inheritance and

reward. He delights in his profession on account of his love of science, and for the means and facilities it affords him of imparting substantial benefits to his fellow-man ; while the other pursues it as a routine, merely for the sordid purpose of first heightening popularity ; and, secondly, thereby to improve his pecuniary condition. Hence, we may perhaps to some extent deduce the rationale of the existence in our membership of those impracticables, who most commonly are to be found engaged in engendering suspicions, and disturbing the social harmony of professional intercourse.

It would give encouragement and force to the enterprize and potency of our profession, if its membership could be characterized by the patriotic sentiment of the Roman statesman, who, in the dark ages of its political history, desired to have engraved on every citizen's forehead what he thought of the Republic. Such devotion to its interests, its objects and its pursuits would greatly tend to its advancement to a position of independence, entitling it to the universal respect and high estimation of the public approbation and confidence. Such a course of united concert of purpose and action, while it would promote the individual personal advantage of its members, would greatly enlarge the sphere of its varied influences in the suppression of the dogmas and errors, and the subversion of the ready patronage that is so generally afforded to charlatanism in all its various forms.

It is surely to be regretted that in a profession of acknowledged learning and intelligence, and whose objects and aims are specifically designed for the amelioration of the human family, distinguished alike for ascertaining and pointing out the causes of disease, and indicating the appropriate correctives, and then conducting its assaults so as to shield its victim from its deadly shafts, that there subsists less harmony of feeling, concert of action and fraternity of sentiment, and combination for mutual benefit than is perhaps to be met with in any of the learned pursuits of life. Infallibility of opinion, and a supercilious intolerance of the opinions of rivals, and an insidious depreciation of the practice and prescriptions, and an uncalled-for intermeddling

with their professional engagements, are characteristic of the daily conduct of many, and constitutes a procedure that merits the universal execration, not only of the medical profession, but of the public voice itself. To the junior members of the profession, just emerged from their pupilage, with high literary and theoretic attainments, but unsupported by any of the aids arising from observation and experience, or the extraneous support of extensive acquaintance or influential connections, it would be a source of incalculable comfort and cheering animation to know that they had the benefit of a kind word and costless action of their senior rivals. Indeed, they should be authorized to feel that they were entitled to expect, as due to professional etiquette, not only a frank acknowledgment of the claims, but a cheerful tender of experience and counsel, and a necessary support in all trials and difficulties appertaining to their professional duties. High-minded and honorable medical gentlemen, moved by the impulses of a generous nature, can bestow such aid, without any impairment of dignity, diminution of professional reputation, or detriment of his pecuniary advantage.

Amongst equals in the senior walks of the profession, alike entitled to public confidence and to reciprocal friendship, we sometimes are forced to witness a malignant purpose to pander to public sentiment, by giving currency to insinuations and innuendoes, designed and calculated to underrate, improperly, the skill, or alledged injudicious prescriptions of his rival. Such conduct while it may for a time gratify an unnatural and vindictive temper, will never result in any permanent individual good and most certainly will become the parent of an alienation of kindly sentiments, and mis-direct those salutary influences that should be combined and directed for the benefit of suffering humanity, and which separately lessens their capacity for bestowing good, and operates injuriously upon their mutual individual advantage. Witness the effect in an intercourse with the sick. A state of stubborn neutrality exists between two medical gentlemen of acknowledged skill, and equally poised in the estimation of the public confidence. The patient of one, an important member of society perhaps, whose life has become jeopardized by

disease, and whose confidence in the judgment and skill of his attendant is not diminished, yet under the peril of his situation, and perhaps in addition, impelled by the advice of friends, is induced to solicit the counsel of the other. But stung by the remembrance of former supposed injuries, and inflated by the pride of self-complacency, and not willing to hazard the loss of a wreath from his prospective cap of fame, he flatly and coldly says, "No, I cannot submit to a consultation with that gentleman; my professional honor would suffer by the degradation." Is not such a course tampering with the lives of those committed to our care? The depressing effects of such a refusal, of so rational and allowable a request, upon the enfeebled spirits and mind of the patient, might be sufficient of itself, to sink him into irrecoverable prostration. Is this fulfilling the requirements of the golden rule, of doing to others as you would that they should do unto you under like circumstances? Who in such a case is to be the sufferer? Is it the high-toned and insulted honor of the medical attendant, or rather, is it not the anxious and alarmed dying man, that is forced to atone for the self-conceited honor of his physician? No, sirs, it is not true, nor can it ever be true, that there would result an injury to any medical attendant, by yielding a ready acquiescence to the strong and exciting appeals of friends, or the reasonable requests of his patient, for the counsel and aid of the object of his hatred or strong dislike. Does he not perceive that if the sought-for aid accomplished nothing more, it might contribute greatly to reinspire hope, and reanimate the remnants of courage, which alone might serve as the fulcrum upon which the scale of life could turn it into a favorable direction, and thus rescue him from an inevitable fate? Would not such a triumph outweigh all the petty and sordid considerations influencing the conduct of such physicians? But enough of this.

The fourth clause of the first article of the *Code Ethical* of the AMERICAN MEDICAL ASSOCIATION, very properly condemns and denounces the habit of hasty and gloomy prognosis practiced by some physicians, as savoring strongly of empiricism; yet, still I am sorry to acknowledge that this habit has not been entirely

abandoned. Whether this has arisen from a want of a proper appreciation of the pathological condition of the patient, or an injudicious adaptation of remedies to the indications to be fulfilled, or to a lack of confident reliance on remedial appliances, or to a disposition to magnify the importance, difficulties and complications of the case, for the purpose of making his skill more manifest in the public estimation, is equally immaterial and unnecessary to be inquired into.

Taking either view of the case, the practice is alike exceptionable. In the first case, he may be regarded as inexcusable for entering upon the duties of so responsible a position, deficient in those necessary acquirements so essential in encountering and overcoming such difficulties. And in the latter case, he gives evidence of a corrupt heart in thus victimizing his patient, and tantalizing the credulity of the masses to purposes of the most degraded personal aggrandizement. Considering the temptation that such a course affords, I have often been strongly inclined to believe that the latter is most often the motive that prompts to such a procedure on the part of physicians, often of fair pretensions to professional skill. Dr. Rush seemed to be of the same opinion when he said: "I know that the practice of predicting danger and death upon every occasion is sometimes made use of by physicians in order to enhance the credit of their prescriptions, if their patient recover, and to secure a retreat from shame if they should die." Such was the contempt of that great, good, and noble heart for such charlatancy, that with some spleen and just vindictiveness, he characterized it as "mean and illiberal."

During my pupilage I was permitted to accompany a medical gentleman, distinguished more for the amenity of his manners and benevolence of heart, than for the profundity of his attainments, on a visit to a youth laboring under an extensive erysipelatous inflammation involving both of his lower extremities, superinduced, as it was, by a life of excessive intemperance and debauchery. After contemplating what seemed, indeed, to be the appalling result of the case, the kind heart of the physician, forgetting for the moment, or not properly appreciating the responsibility of

his professional attitude, and yielding to the impulses of sympathy, and anxious regard for, and interest in his previous moral degradation, and want of suitable preparation for what seemed to him to be the inevitable event before him, he explicitly and frankly informed him that he must die; and proceeded very graphically to point out his last alternative duty. The patient with apparent attention, listened to the close of the lecture, and after an interval of some moments of silent reflection, with a flush beaming with confident hope, and an eye flashed with the inspiration of courage, and with a smile of contempt playing upon his countenance, and an air of determined resolution exhibited in his voice, he replied: "Doctor, I think you are mistaken; I shall not die this time." He did recover, and although his kind physician was permitted to continue his attention until recovery was effected, yet his contempt and want of confidence in the skill of his medical adviser long survived his recovery.

And on the other hand, I have known respectable and intelligent physicians at once spread wide the extremely critical and doubtful condition of all cases, both mild and malignant, and even foretelling the fatal result; when in most instances contrary terminations have taken place. In any aspect of the subject, such a practice is not only morally wrong, but it has a direct tendency to destroy the respect and confidence that the public should entertain for the medical adviser. For, although he may be eminently qualified for the practical duties of his profession, and it should be found out, as it surely will be, that his judgment, either from error or design, is so much at fault, the public conclusion will be that nature has accomplished the cure in despite of the opinion, and contrary to the predictions of the physician. And then he loses all the powerful advantages arising from his moral influence over the will of his patient, and its inspiring effects upon his friends and neighbors.

Medical annals abound in the evidences of the mighty effects upon disease that the mind and will may, and often do exert. And that physician who can command the greatest number of the elements of strength to fortify his position, and properly bear upon the moral and physical forces of his patient, will be crowned

with the greatest success in the management of disease. The authority recently quoted in speaking of the inspiring influence of hope very justly remarks: "Let us avail ourselves of the handle which these faculties of the mind present to us in the strife between life and death;" and that "attention to this principle has much oftener answered than disappointed his expectations;" and that while his patients had given credit to his medicines, he had been "disposed to attribute their recovery to the vigorous concurrence of the will with the action of the medicines."

If such a course is dictated from design, it is justly liable to be construed into a purpose to justify an extravagant charge. It is by no means difficult to persuade patients and their friends that the case is one of great delicacy and importance, requiring large demands upon the skill, time and attention of the medical attendant, and hence the conclusion, naturally enough, is, that a corresponding augmentation of fee will be readily tolerated. Such policy on the part of medical men, is handsomely burlesqued by Dr. Paris in his recital of the custom of the Chillian physicians. "Zimmerman," he says, "informs us that they blow around the beds of their patients to drive away disease, and as the people in that country believe that physic consists wholly in this wind, their doctors would take it very ill of any person who should attempt to make the method of cure more difficult—they think they know enough when they know how to *blow*."

Finally upon this subject, I will give it as an individual opinion, that it can scarcely ever, if at all, be necessary that we should decide with confidence, at any time upon the issues of disease.

[CONCLUDED IN THE NEXT.]

ART. III.—*On the use of Obstetrical Forceps in the Uterine Inertia.* By ORREN SMITH, of Knoxville, Tenn., Professor Obstetrics, &c., University of Vermont, Burlington.

In making a few suggestions upon this topic, I am aware that the majority of the medical profession are inclined to look upon midwifery as an art, and obstetrics as a science, which are ma-

tured and perfected, or so nearly so that any criticism upon the common practice or suggestions of different principles for the guidance of professional practice, will be examined with much caution, or perhaps stamped as an innovation, which is uncalled for, and visionary.

Still the fear of criticism or incredulity should not be allowed to stifle investigation, nor prevent the expression of honest convictions of truth; and especially when the principles canvassed are calculated to ameliorate the sufferings of individuals, or improve the condition, advance the safety or welfare of any portion of the community.

I am also aware that paternity to an article in public print is so near a tie, that there is danger that the relationship may make one blind to the merits or demerits of his own production; and may subject one to the charge of pedantry—and his mountains may be only molehills, or mental illusions to the man of deeper thought, and more practiced eye. But, passing all these obstacles by, the medical man looks only to the results to be obtained; and the honor of the course to be pursued. Having premised thus much as an oblation to public opinion, and an apology for doing what I have a perfect right to do, permit me to say, that if practical experience, reflection or thought can demonstrate the utility of changing the rules for using, and the use of *Obstetrical Forceps*, I trust no long-cherished opinions, or aversions to change, so prominent and common to the medical profession, will prevent them from listening to that which at first thought might be considered an unwarrantable innovation upon orthodox practice; or from judging correctly where professional duties call upon them to decide between surveillance, and interposition; and, if interposition is to be practiced, the time, kind and manner, of making it in uterine inertia; I allude to that period of time which writers find difficult to clearly describe and define, but in which they are ever cautious to warn the young practitioner against being hasty or officious, and very properly so.

Still I think there is too great a reluctance and dread in the profession to the use of the forceps; and that the injury, resulting from the opinion of what should be their proper use, is far

greater in amount, than that resulting from their frequent or uncalled-for use. And I have no doubt that a course of practice different from that recommended by writers generally, or sanctioned by the common practice, should be pursued, and not be styled either hasty or officious, because it should become a rule, a fixed principle.

This leads me to enquire, why is there so great reluctance and aversion to the use of the forceps? I answer because custom sanctions their use only, in extreme cases: as a *dernier resort*, or as a choice between their use, and oxytoxics, turning, or perhaps craniotomy or evisceration, or perhaps not until the protracted labor, or its violence when stimulated by ergot, borax, or Indian hemp or something of the kind or mal-positions have destroyed the life of the child. Or complete exhaustion of the mother has supervened, or before their use; or long continued pressure of the head upon the soft parts of the mother may have induced inflammations terminating in ulcerations, sloughing, or death of the patient, and the use of the forceps is only associated in the public mind, and too often in the professional, with the ideas of extreme suffering and disaster.

Again it is too often the case that the accoucheur knowing that the felicitous use of the forceps requires some little tact or skill, fears to put his unpracticed hand to the ordeal.

The directions in our text books for the manipulations in using the forceps are usually such as to give the novice a plan which will not prove very satisfactory to himself or complimentary to his mechanical skill. Again, some of our books are loaded with grave injunctions to call in some professional brother before resorting to the use of the forceps; so as to be able to prove the necessity, for the proposed interference and also to share the responsibility of the result!

Most practitioners, who are unaccustomed to the use of the forceps, long before they would do this, would prefer to hazard the use of the oxytoxics, in doses at least large if not unwarrantable, dreading the contact of rivalry or unprofessional etiquette upon themselves; more than the effect of the medicines upon the parturient. Beside from their instructions and the accredited

notions of the world, the oxytoxics are a milder measure than the use of the forceps! A dogma from which I most heartily and respectfully beg leave to dissent; and in this dissention I am *indirectly* sustained by most of our modern writers who in advising to give ergot, also advise to have the "*forceps*" ready; or "*means*" ready for the speedy delivery, in case the ergot should act unfavorably and endanger the life of the child. I take it for granted that no one, who has ever used ergot, will ask me to do more toward showing that it is dangerous to the life of the child. Or that when it exerts its specific effect, it greatly and often unnecessarily increases the force of the pains and the sufferings of the mother; producing contractions which are uncontrollable, and often beyond the power requisite for delivery, and by the continuous action, not giving sufficient time for proper expansion and dilatation of the maternal organs; consequently the birth of the child is not effected with the least necessary violence and force to the mother.

In order to put my position in an unmistakeable light, I will suppose, that in a case of the first presentation, vertex left, the face has passed into the hollow of the sacrum, the os uteri sufficiently dilated, and no disproportion of parts, which prevents the completion of labor; but simply a want of uterine power, the pains growing less and less efficient, becoming shorter, the muscular fibres of the uterus itself becoming exhausted from repeated contractions to a given point, where no change of position is obtained, in consequence of the contents of the uterus remaining unchanged in quantity or position. And when the general system may, or may not, show an exhaustion corresponding to the uterine inertia.

Now in such a condition of things if the common resources, as change of position, warm drinks, &c., do not suffice, and you feel compelled to wait and let the uterus exhaust its action, and the labor for a time to close; while by sleep, rest and diet you restore the lost tone of the system and the uterus; or give the specific remedies; or use the forceps! I would freely and frankly say use the forceps; because their proper use is not only painless, but grateful to the patient, their action is always under con-

trol, and perfectly safe to both mother and child, and the labor may be terminated at will, without the danger and inconvenience of a long continued arrest; inconvenience to the patient I mean, and not the accoucheur or nurses, and it will be remembered that well authenticated observation and correctly kept tables establish the fact, that every successive hour, in parturition, adds to the danger of both mother and child.

I take the simplest form for the application of the forceps, because it is the principle I wish to establish, and not intending to compass the whole routine of instrumental delivery. If any one has had the patience to follow me thus far in this communication, they are possibly ready to enquire what I mean by a *proper, painless* use of the forceps?

It is very difficult to describe a mechanical operation on paper without the aid of drawings. Still, as there is not much danger of making the manipulations worse by any suggestions or criticisms I may make, I will venture to say, that first, for the successful use of the forceps, the anatomy of all the parts concerned should be understood—both the soft and osseous; particularly should the anatomy of Carus's curve be constantly in mind. For the honor of the man who described it, Prof. CARUS of Dresden, I am willing to use the phrase Carus's curve, instead of the phraseology, axis of the cavity of the pelvis, which, it will be borne in mind, is quite a different line from the axis of the cavity of the abdomen; and Carus's description of the axis of the cavity of the pelvis is quite as ready for illustration, and as fully adequate for all purposes of demonstration as the more modern and mathematically exact delineations of this axis. Aside from Carus's description, the novice gets the idea of a circle completed; and some three-fourths of this circle is *traversed* and used by whatever body fills the cavity and traverses the canal. Carus's rule for finding the axis of the cavity presupposes that one innominate is firmly fixed to the sacrum in the natural position; then take a pair of dividers and place them upon the inner and superior edge of the surface of the pubic articulation, center one foot; extend the other until it equally divides the space between this foot and the promontory of the sacrum, then sweep this foot

around the center until the circle is completed, and you have nearly, in imagination, the line along which the axis of the head and body of the child must pass in parturition, and farther than the plane of the inferior strait; because, in labor the perineum is pushed downward, and the posterior parts of the pudendum, instead of being continued from the symphysis pubis backward and downward, is thrown forward, so that the commissure opens *upward* and *forward*.

The time having arrived, in which the accoucheur decides that the interest of his patient demands the use of the forceps—and that time I would not measure by hours, but by the condition of the case—taking all things into the account; if he has the confidence of his patient as he ought to have, he will find no difficulty in getting the consent of the patient and her friends—especially after a few properly managed cases have indoctrinated a community—and he will even then find that the pressure of the community will be for the use of the forceps, even when their use is not indicated. I would then deem it essential—because, to me, far more convenient—that the patient should lie upon her back, and across the bed, rather than diagonally; and with the hips, back, or sacrum, elevated above the surrounding bed—this is of essential importance if the position on the back is assumed, otherwise it will be found difficult, or impossible to lock the forceps or put them in proper position—and the position should be upon the back, because no other position allows the requisite manipulations to be easily and properly performed; as I trust I will soon be able to show. A nurse or female assistant stands upon either side and supports the knees of the patient while they are separated to a convenient distance, while the feet are drawn up so as to be nearly in contact with the hips, the patient of course covered with her clothing and the quilt or counterpane; the accoucheur then standing at the feet of the patient, with his forceps suitably warmed and oiled, takes the blade which is to lie beneath the other, when locked, for instance, the one which is to be applied to the left side of the patient, corresponding to the right hand side of the accoucheur, and takes it in his left hand, but by the fenestrum with the thumb upon the convex edge, three

first opposing fingers upon the concave edge, and with the concave *side* towards the palm of his hand; one of the assistants can hold the clothing which is over the patient so high as not to be in the way of freely moving the instrument, which is to be held diagonally over the abdomen, the handle crossing about over the centre of the crest of the ilium of the side opposite to the one on which it is finally to lie, and at but a few inches distant from the abdomen; when the index finger of the right hand separates the os uteri from the head of the child, with the nail side of the finger towards and in contact with the uterus; when the end of the blade of the forceps is gently slid along the palmer aspect of the finger and glides by a motion outward, downward and inward between the mouth of the uterus and the head of the child; when the handle of the instrument is raised toward a perpendicular position, and when there, the weight of the handle is generally sufficient to carry it down to its proper place, at the same time that the blade glides along the head of the child and assumes, or nearly so its proper position. The introduction of the other blade reverses of course the hands and manipulations, when the handles of the forceps will cross each other, naturally from their shape and condition, and will readily lock, if they are in right position; and if they do not, put one finger into the fenestrum of the blade which lies lowest and raise it toward the pubes; possibly both may need to be raised which is very easily done; when the blades will lock if you have also observed the rule of keeping the hips so high that the contact of the pubic bone does not operate to depress the blades, for it will be borne in mind that we have no forceps whose concavity and convexity of the edges does not form the arc of a much larger circle than the arc of the circle of Carus's curve. This leads me to say that the crooked forceps are in my opinion far better adapted to use, and the comfort of both mother and child than any straight ones can be, and I have never seen any whose curvature was too great. Though I have found the English forceps, made by Davis' pattern, to be well adapted and easy of application. The forceps being locked shows that that they are properly adjusted. And now for the use; and here some of my

manipulations are also peculiarly my own. I stand a little to one side of the centre of my patient, and grasp the handles when locked, with the palm of my hand under the handles and the little finger towards the vulva; I slightly raise the handles and with the fingers of the other hand depress or bear down upon the forceps making the pressure as convenient some where near the lock at the time of uterine contraction, suffering but a very *slight* rocking motion of the handles to be made, and that motion up and down, taking care that the handles are not depressed so low as to suffer the point of the blades to be pressed upon by the lower or internal surface of the pubic bones, and as the head progresses along the curve, the handles are raised higher and higher until at the expulsion of the head the handles are over and nearly or quite in contact with the abdomen. The force to be used in these cases is very slight indeed; if it is kept exerted only in the course of the *axis* of the curve; toward the close of the expulsion the forceps may serve no other purpose than to keep the head as near the pubic arch as may be needed, which can be done with one hand while the other supports the perineum. The advantages of this course are, as I have said before, first, it is safest to both mother and child; second, it does not add one pang to the mother's suffering, but is actually a relief—for the forceps, when adroitly introduced and used, are not more painful than ordinary digital examinations,—and thirdly, the labor is at all times under the perfect control of the accoucheur; and these reasons I deem ample and sufficient to give preference to the practice.

ART. IV.—*Notes on the History of the Cases requiring the Removal of the Inferior Maxillary Bone.* 1. Case reported by WM. H. DEADRICK, M.D., of Rogersville, Tenn., in the American Medical Recorder, Philadelphia, vol. 6, page 516, for 1810. 2. Case reported by GEORGE C. BLACKMAN, M.D., of Cincinnati, Ohio, in the American Journal of Medical Sciences, for October, 1856. By RICHARD O. CURREY, M.D., editor of the Southern Journal, Knoxville, Tenn.

In the October number, 1856, of the *American Journal of Medical Sciences* we find a case of removal of the entire lower jaw, reported by George C. Blackman, M.D., of Cincinnati.

Believing that, especially in surgical operations, honor should be given to whom honor is due, and perceiving that Dr. Blackman, in his notes on the history of these operations has failed to give credit to one with whom, Dr. Gibson says in his second volume of Surgery, "the practice originated," we do not think we can better subserve the cause of surgical science in the South, than by the re-publication of Dr. Deadrick's case.

The following is the brief history of these operations given by Dr. Blackman in the *American Journal of Medical Sciences* for October, 1856:

"The removal of the entire lower jaw for necrosis has been performed by Perry of England; Ganwesky, of Westphalia; Maisonneuve, of Paris; Pitha of Prague, and Heyfelder, of Erlangen; also by McClellan, Carnochan, Marsh, and James R. Wood, of our own country. These cases are of interest, inasmuch as their results furnish us with illustrations of the wonderful reparative powers of nature; but they can hardly be classed with the operations of osteo-sarcoma executed by Professor Syme, Mr. Cusack of Dublin; Mr. O'Shaughnessy, of India; by Dieffenbach, of Berlin; by Dr. Mott in the case of the negro 'Prince;' by Dr. Ackley, of Cleveland, and I think I may add, by myself. In Professor Syme's case of the removal of the entire lower jaw, the patient died suddenly the day after the operation, as was supposed, from suffocation produced by the retraction of the tongue. (*Contributions to the Pathology and Practice of Surgery*, p. 21.) Mr. Cusack informed me in June, 1853, that some fifteen years before, he had, for osteo-sarcoma, extirpated the entire bone, and that his patient died a week afterwards, during his absence from town, in a supposed epileptic fit. Dr. Signoroni, of Padua, is reported (*Phil. Med. Exam.*, vol. vii., 1844, p. 96,) to have exhibited to the Medical Congress of that city, Sept. 27, 1842, a patient, from whom, by successive operations, he had removed the entire lower jaw affected with osteo-sarcoma. The patient was then in perfect health. Mr. William Hetling, Surgeon to the Bristol Infirmary, England, reported in the *Transactions of the Provincial Medical and Surgical Association*, 1833, p. 277, a case of very extensive osteo-sarcoma of the lower jaw, in which the greater part of that bone was removed, and in this report he makes the following statement: "Mr. Liston, of this city, lately removed the whole lower jaw in a case of this kind; and recovery would certainly have taken place had not an attack of the erysipelatous inflammation, then epidemic, supervened, and proved fatal."

"For many years, Walther, of Bonn, has had the credit of having successfully removed the entire lower jaw, and as his claims have been questioned by some surgeons, we insert the following extract from a letter addressed by his nephew, Dr. J. E. Webber, to Dr. Perkins, of New York:

"Suffice it to say, that I myself am acquainted with eye-witnesses, yet living, who saw the case before the operation, during the operation, and after the operation and subsequent recovery, and there is at this moment in the hands of the eldest son of Walther, a distinguished physician at the capital of Bavaria, a written account, minute in its details, affording a complete history of the case; which report, written by himself, at the request of his father a few days subsequent to the removal of the bone, will be published among the collected papers of Dr. Walther, which his family are about giving to the world."

"I have been informed by Dr. Mott, that he has examined an individual who stated that his entire lower jaw had been removed by Mr. Hutton, of Dublin.

"The most extraordinary operation on record is unquestionably that reported by Professor Syme, in the *Edinburgh Medical and Surgical Journal*, vol. xxx., p. 286, 1828. The illustrations there given present truly a frightful picture:

"The mouth was placed diagonally across the face, and had suffered such monstrous distortion as to measure fifteen inches in circumference. The throat of the patient was almost obliterated, there being only about two inches of it above the sternum, so that the cricoid cartilage of the larynx was on a level with that bone. When the tumor was viewed in profile it extended eight inches from the front of the neck. It completely filled the mouth, and occupied all the space below it from jaw to jaw. The tongue was thrust out of its place, and lay between the teeth and cheek of the right side, &c., &c.

"The jaw was removed from the right articulation to the left angle, and had a speedy recovery. The tumor weighed 4½ lbs! In the 38th volume of the same journal (1832,) Professor Syme states (p. 321) that the patient continued quite well, "masticating and articulating perfectly, and having nothing very disagreeable in his appearance." On the same page he refers to a preparation removed after death by Dr. Martin, of Chatham, in which the mass protruding from the patient's mouth measured at its neck twenty-one inches in circumference, and weighed 8 pounds!

"I might notice in detail the successful operations of Cusack, O'Shaughnessy, Ackley, and others, in which nearly the whole bone was removed for osteo-sarcoma; but these are already familiar to the surgeon."

After reading the foregoing, we addressed a letter to Dr. Deadrick, who now resides at Athens, Tenn., and who has attained the advanced age of 72, asking for a copy of the report of his case. His favor we have received, and publish in his own words.

A Case of Removal of a portion of the Lower Maxillary Bone for osteo-sarcoma. By WM. H. DEADRICK, M.D., formerly of

Rogersville, Tenn.—Feb. 6, 1810.—Jesse Lay, a youth of about 14 years of age, was brought to me by his mother for the purpose of obtaining relief from the formidable inconvenience of a large tumor enveloping the left half of the inferior maxillary bone, and which, from the account given, appeared to have originated from the alveoli or socket of a decayed tooth. Externally the tumor presented the appearance of a wen; internally, so completely filling the inside of the mouth as greatly to interfere with the functions of respiration and deglutition; the boy, in fact, being compelled to sleep in a semi-recumbent posture. The tumor increasing daily in bulk, it was sufficiently evident that nothing short of the removal of the bone with its incumbrance could prevent the death of the patient at no distant day. The lad and his friends being fully persuaded of this, and willing to risk an operation and to exonerate me from censure in case of its failure, it was undertaken and performed as follows:

An incision was commenced immediately under the left zygomatic process and continued in the direction of the jaw bone to near the centre of the chin, and another at right angles with the first over the tumor and down the neck. The integuments were now separated from the tumor, and the latter (the tumor) from its connections, and the bone sawed off immediately at the angle, and at the chin. The hemorrhage fortunately was not difficult to control. The integuments were carefully re-adjusted, and retained by sutures and adhesive plasters, and the patient being otherwise healthy, in six weeks the recovery was complete.

This young man, after the operation, remained several years in the neighborhood where I resided, and I have often seen him since his arrival at the full state of manhood, and I have reason to believe he is still living. The space between the ends of the bone remained vacant, that side of the face becoming a little flattened, and the chin somewhat peaked, but the scars being concealed by a well trimmed whisker, very slight deformity is apparent except on close inspection.

This case was reported the same year, 1810, by Dr. Deadrick to the *American Medical Recorder*, of Philadelphia, and Dr. Gibson in his 2d. Volume of *Surgery*, 4th. Edition, 1835, thus alludes to it, page 425:

"Within the last few years, several operations have been performed in this country and in Europe, for the removal of osteo-sarcomatous and other tumors, situated on the lower or upper jaw. The practice may, perhaps, be said to have originated with Dr. DEADRICK, of Tennessee." Then follows a short account of the case.

This was without doubt the first time the operation had been performed, and the thing being once demonstrated, numerous similar operations have since been undertaken.

Neither does Dr. Blackman give credit to the case operated upon by Dr. W. W. Anderson, of South Carolina, in 1832, and reported in Dr. Gibson's *Surgery*, pages 427-431, and which was also successful.

In Dr. Blackman's case a lady aged 60 had received an injury in the extraction of a tooth; disease being induced, for forty years she was a sufferer.

Being placed under the influence of chloroform, an incision was made from a point in front of the right ear, around the curve of the lower jaw, an inch and a half below the border of the lower lip, to the angle on the left side. Making another incision so as to expose the fungous tumor, with one of Luers's saws he divided the bone at the left angle, and the removal of the entire bone was accomplished in fifteen minutes. Being extremely warm weather, this patient died of prostration the next day after the operation.

But we have adduced these cases that justice might be given to the skill and intrepidity of Dr. Deadrick, who, without any precedent, determined upon the performance of this operation and successfully demonstrated that it could be done. And we regret that Dr. Blackman, in summing up instances on record of this surgical operation, did not possess the information respecting Dr. Deadrick's case; for his article is now on record in one of our best medical journals, and future operators will be influenced to some degree by what he has put on record of its history.

ART. V.—*Vaccination*. By JAMES H. SAWYERS, M.D., Knoxville, Tenn. Read before the East Tennessee Medical Society, October, 1856.

In the present advanced and advancing state of medical science, when old theories are being tested, overthrown and consigned to forgetfulness, or approved and confirmed as the case may be, and new suggestions, improvements and hypotheses, are occupying the profession, and eliciting learned discussions, the subjects of interest presented to the student of medicine are numerous.

The relative claims of ether and chloroform as anæsthetic agents; the relative importance of the gastric and intestinal juices in the process of digestion; the mode of the formation of sugar by the liver; the function of the spleen, and the nature of the menstrual fluid are a few of the many, opening up wide fields for thought and investigation. But so discrepant are the views and teachings of high and respectable authorities, that the mere tyro in the profession is incompetent to decide as to their correctness or incorrectness. Indeed, without much observation and experience it would be presumption for him to make the attempt.

He must be content, generally, to study and record the ideas and views of others, the fruits, perhaps, of a life of practical and experimental observation, and assiduous study.

But that we may not be entirely remiss in the performance of the duty assigned us, we have selected vaccination, as the subject of our essay, being about which almost all are agreed as to its importance.

In treating the subject, we aim not at originality; if we render ourself excused before you, we will attain the desired object.

As the object of vaccination is exemption from small-pox, a brief notice of this disease may not be inappropriate.

We gather from its history, "that it prevailed in India and China from time immemorial." And from these points, apparently as centres of radiations, it sooner or later invaded most parts of the earth. Its visitations, whether in sparsely settled districts, in crowded cities, or among the hosts encamped on the plain, were marked by an alarming mortality. Misery, suffering

and distress were its invariable attendants and death its seeming prize. An average of 25 per cent. succumbed as victims to its fatal mark. In many instances, the mortality was swelled to 40 or 50 per cent. And when recovery occurred it was almost always attended by unpleasant traces—the loss of former attractiveness, a source of very great inconvenience, and discomfort; and also, not unfrequently with opacity of the cornea, and even sometimes, with total loss of vision. Its attacks, too, were regardless of age and sex. All were susceptible and fit material to determine the direction of a blow.

Having thus briefly noticed the fatality and loathsomeness accompanying variola, we are better prepared to appreciate any prophylactic measure, offering whatever of security. And since vaccination affords security to the majority, and so far protects the remainder as to modify the original disease, divesting it of many of its terrific features, its importance becomes apparent. And this is not mere assumption, for experience, observation and statistics claim for it such protective power wherever it has been properly practiced and impartially tested.

So efficient is it as to be considered “the triumph of modern medicine.” And certainly, no discovery has resulted in such lasting benefits to mankind—none so effectual in curtailing their sufferings.

Although the variolous disease prevailed for centuries as the dreaded pestilence, it was not until late in the eighteenth century, that the discoveries, which proved so useful, were made by Dr. JENNER. An account of the difficulties and trials encountered by him in his early investigations, would be unnecessarily introduced. Let it suffice to say, that at an early day after their promulgation, vaccination was performed in most parts of the earth. Its practice was attended with such happy results, as to supercede inoculation, long in use, and establish it on the firm basis which it at present enjoys with all the civilized world. For this precious boon, all the future generations of mankind will hold the name of JENNER in grateful remembrance. Notwithstanding the general satisfaction following vaccination, an effort has been made by a few, to bring it into disrepute, and re-establish inoculation.

True, the profession was too sanguine; all that was expected has not been realized. Perfect exemption is not afforded all. The genuine variolous disease occurs after vaccination—designated varioloid, from its resemblance to the original disease. It also occurs after inoculation and natural small-pox. But the modified form of the disease is so mild, as to be seldom fatal. Many practitioners in our own country and in Europe, of long and extensive experience, have no bill of mortality whatever to render. In Prussia, where inoculation was in high repute, the mortality from small-pox was 37 times greater than at present, or since the general practice of vaccination. Analogous reports are given, showing a marked relative diminution in the cities of London, Dublin, Berlin, and others. In small-pox, after vaccination, the per centage of death, ranges from 1 to $3\frac{1}{2}$. After inoculation, the per centage is 33; and after natural small-pox, the per centage is 37. These facts and statistics clearly evince the decided advantage of vaccination over inoculation; and also, that it affords better security than an attack of natural small-pox.

From these favorable reports, and a very limited observation, we are induced to receive vaccination, as the means affording the greater security and to rely upon it with implicit confidence. I say observation, for I must confess, that by it, though limited, I was led to its proper appreciation; a brief notice of which, will be excused, we presume.

In April, 1855, a gentleman from Georgia having been exposed on the way, to small-pox contagion, was attacked, imparting the disease to the family—his relations—with whom he fell sick and died, 11 miles east of Knoxville. From this one, as a centre of contagious influence, other families became infected. Two of which, in the vicinity of Knoxville, came under the care of my preceptor, Dr. James Rodgers, with whom it was my pleasure and fortune to attend them.

One of them consisted of grandmother, mother, three adult sons and two daughters. A son was first attacked. So soon as the nature of the disease was ascertained, all were vaccinated except the parents, who had undoubted evidence of early vaccin-

ation. A second son and eldest daughter had variola; the third son and youngest daughter had mild varioloid; the grandmother had very mild varioloid, and the mother escaping the disease altogether. The other family consisted of parents, two daughters, and a young man—a sojourner. Early and repeated vaccination was employed upon all except the mother, who had a fine scar, although eighteen years had elapsed since its performance. The father, and youngest daughter of five years, had variola; the mother, eldest daughter, and the young man had varioloid. Of the eleven cases occurring in both families, six were varioloid, and five variola; three distinct, and two confluent.

A brief review of these cases shows that protection was afforded to one-half after exposure. And also, that two of those vaccinated in early life, had very mild varioloid, and the other escaping the disease entirely without re-vaccination; confirming the opinion, so far as it goes, of those who contend that the protective influence neither wears out in seven, ten, fifteen, twenty nor twenty-five years. And we further add, that during many efforts at vaccination, quite a number advanced in life, refused to be impressed with the vaccine disease, showing the destruction of the natural susceptibility, by the one early vaccination.

Of the essential nature of the susceptibility of each individual, and the nature of the impression imparted, or the change wrought in the system to counteract it, we are entirely ignorant. In treating of vaccination more correctly, we should first notice the time and subject proper for operation; secondly, the matter to be employed; thirdly, the mode of operation; and lastly, the phenomena attending success.

As a general rule to be observed, the subject should be of good health—free from other affections. And as the object is protection against small-pox, and all being more or less susceptible, reason would dictate early vaccination. Therefore, the period advised as proper for its performance varies from two to four months. But during an epidemic, when one is liable to immediate and constant exposure, it should be practiced irrespective of the age and health of the individual.

The matter to be employed, whether in the form of lymph

or scab, should be obtained from a healthy subject, free from strumous diathesis, syphilitic and hereditary taints. Although the greater efficiency is ascribed to the lymph, the scab being sufficiently efficacious and the more convenient form for use and preservation, it is most generally employed. The scab should be of a dark reddish brown color, translucent, of easy fracture, and readily soluble in water. There are two points, one of which is generally selected; a point on the forearm, about midway between the elbow and carpal joints, being selected for males, and a point on the outer part of the humerus, near the insertion of the deltoid muscle for females. The object in the latter being to avoid an unsightly scar on a part likely to be exposed.

Having reduced the matter to a cream-like consistency, it is to be inserted under the cuticle by two or three oblique punctures with a lancet, about one line distant from each other. Caution should be exercised, lest too much blood flow and run over the virus from the punctures. Other modes of insertion are practiced, but this is the most common.

On the third or fourth day after the operation, a slight elevation is perceptible to the finger, and a little redness to the eye. By the fifth day, a small vesicle is formed, umbilicated at the top, and containing a colorless, transparent and viscid liquid. This gradually enlarges, and on the sixth day, is generally surrounded by a very narrow circle of redness at the base. On the seventh day the vesicle is well-formed—round, with a shining silvery appearance. During the eighth day, the hitherto slight border of redness, spreads in all directions, forming a circular areola, which increases until the tenth day; and the vesicle, at the same time, enlarges, and becomes turgid with its fluid contents, especially at its circumference. The vaccine disease is now at its height. On the eleventh day, it begins to decline. Areola gradually disappears. Desiccation begins and continues until complete desquamation—which occurs about the end of the third week—leaving an oval scar, with small depressions over the surface, corresponding to the cells of the original vesicle.

About the period of the maturation of the vesicle, some constitutional disturbances may be observed. Slight fever, hot skin,

and swollen axillary glands. But these phenomena generally pass off without medication. However, in some instances, a saline purge, and a restricted regimen may be required.

These are the usual phenomena attending successful vaccination. But the period of incubation may be longer, or shorter; the stage of maturation may be hastened or delayed; the constitutional disturbances may be milder, or of greater severity—they are most generally so mild as to give little inconvenience.

Notwithstanding the inconvenience is so slight, and the results so invaluable, many are without protection. This is true, to some extent, in our towns and cities—but especially so in our rural districts. This should not be the case. Since, by the improved modes and facilities for travel now-a-days, every part of our country is brought in close proximity, the unwary pilgrim, the accommodating landlord and family, and hospitable friends, are all liable to be exposed to the contagious influence in an unsuspecting hour. Why there should be so many without protection, is rather strange. It is due, we think, to a want of proper consideration on the part of the profession; and, also, to incorrect and erroneous impressions entertained by the mass. And these false views are not confined to the illiterate and uninformed; many refuse to accept the precious boon, when offered them *gratis*. The remedy for these evils are alone in the hands of the profession. Enlighten the public mind, and all these false impressions will vanish. This can be accomplished only by and through the agency of the medical profession.

No obstacle should or would exist to the universal practice of vaccination. And then will the present mortality from small-pox in our country, and especially abroad, be very much diminished,

ART. VI.—*Proceedings of the Annual Meeting of the East Tennessee Medical Society, held in Knoxville, October 21st, 1856.*

The Society met according to notice, in the vestry of the First Presbyterian Church, at 7 o'clock, P.M.; and in the absence of the President and Vice-Presidents, Dr. JAMES RODGERS was called to the chair.

The proceedings of the last semi-annual meeting were then read.

The amendment to the Constitution admitting junior members into the Society, proposed by Dr. James Rodgers, and laid on the table to be acted upon at this meeting, was taken up and adopted.

Dr. Currey called up his resolution, laid on the table at the last meeting of the Society, defining further the duties of members, as recommended by the American Medical Association. On motion of Dr. Hill the whole subject was indefinitely postponed.

The report of the Treasurer being called for, it was presented by the Recording Secretary, as follows:

REPORT OF THE TREASURER.

Oct. 31st, 1855.

Amount paid by members of the Medical Society of East Tennessee	\$16 00
Amount received from the Treasurer of old Society	6 00—\$22 00

Nov. 10th, 1855.

Paid Kinsloe & Bro., for printing hand-bills for the Society	\$1 00
Leaving in the treasury	\$21 00

JOHN L. ATLEE, M.D., *Treasurer.*

Report adopted.

The Committee on Embodying the Acts of the Legislature in reference to the State Medical Society, and on a resolution in relation to Systems of Censorship, wished an extension of time, till the next semi-annual meeting.

On motion of Dr. Crozier, it was voted that the Society go into the choice of officers—when the following named gentlemen were elected officers for the ensuing year:

President—SAMUEL PRIDE, of Blount county.

Vice-Presidents—JAMES RODGERS, of Knox county, and JNO. L. ATLEE, of McMinn county.

Recording Secretary—O. F. HILL, of Knox county.

Corresponding Secretary—R. O. CURREY, of Knox county.

Treasurer—C. W. CROZIER, of Knox county.

The appointment of Dr. Hodsdon to deliver an address was continued until the next meeting.

On motion of Dr. Currey, it was

Resolved, That the Corresponding Secretary address a Circular to each physician in East Tennessee, giving him information as to the

time of meeting of the spring session of the Society; also, notifying him of the prize for the best essay, to be awarded at that time, and asking his co-operation in carrying out the objects of the Society. And that the Treasurer be authorized to pay out from any money in his hands, such sum as may be necessary to defray the publication of such circular.

The Society suspended further business to listen to a *thesis* by Dr. J. H. Blackburn.

Voted to adjourn to 8 o'clock to-morrow (Wednesday) morning.

JAMES RODGERS, *President pro tem.*

O. F. HILL, *Secretary.*

WEDNESDAY MORNING, 8 O'CLOCK.

The Society met as adjourned. Dr. CURREY was called to the chair.

After the reading of the journal of last evening, the Society listened to a paper from Dr. Sawyers on vaccination.

The following resolution was offered by Dr. Currey, and adopted:

Resolved, That Drs. Hodsden and Hamner, of Sevier; Drs. Franklin and Bogart, of Monroe; Dr. Lenoir, of Roane; Drs. Atlee and Long, of McMinn; Drs. James Rodgers and Hill, of Knoxville; Drs. W. A. Rodgers and Smith, of Knox county; Dr. Isaac Taylor, of Blount, and Dr. J. H. Blackburn, of Campbell county, be appointed Special Committees to prepare a paper on such epidemics as are incident to their respective counties—especially those which have prevailed during the year 1856—and report the same to the spring session of this Society.

On motion of Dr. Hill, the Society adopted the following resolution:

Resolved, That the semi-annual meeting of this Society be held in Knoxville, on the Second Wednesday of April, 1857.

On motion of Dr. Hill, it was

Resolved, That the President be empowered to appoint Delegates to the next meeting of the American Medical Association, to be held in Nashville, in May, 1857.

Drs. Long, of McMinn, B. H. Mynatt, of Knox, and Boyd, of this city, were proposed as members of the Society. Dr. Long being present, signed the Constitution and By-Laws.

At the suggestion of Dr. W. A. Rodgers, it was

Resolved, That the officers be requested to prepare Certificates of

Membership, as contemplated by Article IV. of the Constitution; and be empowered to call upon the Treasurer of the Society to defray the expense of publication of the same, out of any money in the treasury not otherwise appropriated.

Voted to adjourn to the Second Wednesday of April, 1857.

R. O. CURREY, *President pro tem.*

O. F. HILL, *Secretary.*

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. VII.—*A Practical Treatise on the Diseases of the Testis, and of the spermatic cord and scrotum.* By J. B. CURLING F.R.S. &c., Second American from Second English Edition. Philadelphia: Blanchard & Lea, 1856.

No class of diseases require more promptness in treatment and more accuracy in diagnosis than do those of which Dr. Curling treats. The rapidity with which they pass into the inflammatory stage, and thence to suppuration or degeneration require that there should not only be a certainty in the opinion we may form as to the nature of the disease but also a readiness to act with that treatment best adapted to the nature of the case.

Hence an accurate knowledge of the anatomical structure is all-important.

In our review therefore of this work we are pleased to find ample instruction given in the anatomy of the scrotum and the testis and its appendages.

Just beneath the skin of the scrotum which is thin, loose and extensible, lies the *dartos* muscle which is composed of "unstriped elementary fibres, and which gives to the scrotum a gradual vermicular and involuntary motion. Beneath this is a layer of cellular tissue, to which succeeds the spermatic fascia, which is a thin prolongation of the abdominal fascia, and beneath this comes the cremaster muscle. All of these parts, giving involuntary motion to the scrotum, serve as a support to the testis, and accordingly as they are impressed by heat or cold, or as the system is vigorous and healthy, or debilitated and in ill health, do they brace up and support the enveloped organs. The testis is described by our author under four

heads. 1. The protective parts or tunics; 2. The proper glandular or secreting surface; 3. The excretory parts; 4. The vessels and nerves.

1. Among the protective parts or tunics are the *tunica vaginalis* and *tunica albuginea*. The former is composed of two portions, an outer, full and loose membrane, and an inner reflected portion closely investing the gland. It is a serous membrane, and thus being folded upon itself it constitutes a shut or closed sac, lubricated by a halitus. This membrane invests the testis entirely, except the posterior edge and lower extremity.

The latter, the *albuginea*, is a dense, resisting, fibrous tissue, investing all of the testis except the epididymis, and connected with the former or vaginal tunic. In this tunic, the spermatic artery and veins ramify, and at the lower part of the testis it forms an internal process in which the *rete testis* a portion of the glandular structure of the testicle, is found. This under the name of *mediastinum testis* is composed of two bodies, in the upper one of which are placed the blood-vessels; in the lower, the canals of the rete.

2. The *gland* or testicle is a simple structure, composed of semeniferous tubes collected into lobes, and supplied with blood-vessels, lymphatics and nerves, of a greyish yellow color, and invested with cellular tissue, sent off from tunica albuginea. The tubes radiate from the circumference of the gland to the mediastinum, and the rays or tubes frequently anastomose with each other. There is a wide difference in the estimate of the number of these tubes, varying from 300 to 840, while their entire length, according to different estimates, vary from 1015 to 1750 feet when unravelled. The tubes are themselves collected into bundles called lobes, each lobe being invested with cellular tissue. Of these lobes there are said to be 484.

3. The *excretory parts* are composed of the *epididymis*, the *vas aberrans*, and the *vas deferens*. The *epididymis* is a continuation of the *testis* and is divided into three parts, the head or globus major—the body and the tail or globus minor. As its name indicates, it lies upon the testis. It is chiefly made.

up of seminal canals. In its connection with the *rete testis*, ducts are given off which are called *vasa efferentia* varying in number, from nine to thirty. These ducts unite to form a single one, which is the canal of the epididymis. The average length of the ducts is about seven inches, and, as there are generally thirteen, their united length would be eight feet. After this union of the efferent ducts, the epididymis is made up of the convolutions of a single canal. Monro estimates the length of this canal at thirty feet; but Lowth at nineteen feet. The epididymis terminates in the *vas deferens*, which arising at an acute angle from that body, ascends along its inner side, and terminates in one of the ejaculatory canals behind the bladder. At its origin it forms several convolutions, but soon ascends in a straight canal, up the spermatic cord to the inguinal canal, passing through, it descends into the pelvis, at first by the side of, and then behind and below the bladder, when joining the corresponding vesicula seminalis, it forms the ejaculatory canal.

4. The *Spermatic arteries* arise from the aorta, just below the renal arteries. The *spermatic veins*, coming from every part of the organ, unite in one vein which is emptied on the right side into the vena cava inferior, and on the left into the renal vein.

The *absorbents* terminate in the lumbar glands on the side of the aorta. The *nerves* are derived from the renal plexus, also from the mesenteric and aortic plexuses.

Having premised our notice of this work of Dr. Curling with the foregoing brief description of the anatomy of the parts, we will proceed to discuss the merits of the book, as respects the diseases to which the testis is subject. We will, however, confine our notice to those diseases most generally met with in practice.

Passing by, therefore, the sections appropriated to numerical excesses, and defects—deficiencies and imperfections of the *vas deferens*—imperfect transition of the testicle—inversion of the testicle—arrest of the development of the testicle—wasting of testicle and injuries—we come to chapter iv., appropriated to hydrocele, concerning which we have a few words to say.

Hydrocele, as its name imports, is a collection of fluid, and

may implicate the testicle, or the spermatic cord. Vaginal hydrocele may be complicated with encysted hydrocele of the testicle, of the cord, or with diffused hydrocele of the cord and with oscheo-hydrocele. There may be also hydrocele of the hernial sac. Of course, it is important to diagnose these different forms and varieties.

Simple vaginal hydrocele.—The tunica vaginalis being a serous cavity, is subject to dropsical effusion. The *acute* inflammation which sometimes supervenes, generally affects the epididymis—though the body of the testicle may escape. This, according to Gendin, whom our author quotes, is owing to a difference in the structure of the two parts, the cellular tissue readily transmitting the inflammation to the epididymis, which can be arrested by the tunica albuginea.

This inflammation may result in adhesions—or in the formation of pus—which, however, is rare.

The fluid effused is transparent of a pale yellow straw color, and varies in quantity, seldom exceeding twenty ounces.

If the position has not been influenced by previous adhesions of their serous surfaces, it may be found at the posterior part, and rather below the centre of the sac.

No rank of life, and no climate is exempt from it, and it may occur at all periods of life—though most common at middle age.

It may be caused by a strain or fatigue, or a blow on the gland, there being a low degree of inflammation first excited, causing the tunic to increased reaction. It is also connected with a chronic affection of the urethra.

The shape of the hydrocele is pyriform, fluctuating—with a smooth even surface. By transmitted light, the swelling is transparent—the position of the testicle being indicated by an opacity. To diagnose from scrotal hernia, our author says :

“The swelling commences at the lower part of the scrotum ; hernia begins at the ring, and gradually descends. The spermatic cord can be felt distinctly above the tumor ; in hernia, it is distinguished with difficulty along the back part of the swelling. The testicle cannot be felt ; but in hernia the gland is readily perceived at the bottom of the swelling ; and further, there is no impulse on coughing, and the tumor is not subject to variations in size as in hernia.”

Treatment is of two kinds—*palliative* and *radical*.

Attempts have been made to remove hydrocele by external remedies, but without any success.

The *palliative* treatment consists in puncturing the tumor so as to allow of the escape of the fluid. This may be done by the lancet or by a trocar, a little below the centre of the anterior part of the tumor. Our author here administers caution, for, says he "more mishaps have occurred in the puncture of hydroceles than in any other operation in surgery." This is owing to the position of the testicle and spermatic artery. The hydrocele may by this mishap be converted into a hematocele.

But the patient being made to stand or sit, the tumor is grasped with the left hand, the trocar, well oiled, is inserted in an oblique direction upwards with a brisk motion of the hand. The perforation of the sac is known by a cessation of resistance, after which the trocar is withdrawn, and the canula gently thrust forward.

But once drawn out, the fluid re-accumulates, and the operation has to be performed again.

Acupuncture is another mode of palliative treatment. It consists simply in introducing a needle into the sac, and allowing the fluid to flow out into the cellular tissue of the scrotum whence it is absorbed.

After an operation, the patient should remain at rest for twenty-four hours or longer, for fear of inducing inflammation and thereby sloughing of the scrotum. The modes of effecting the radical and permanent cure of hydrocele consists in incision of the sac; excision or removal of the tunica vaginalis; caustic applied to the integuments; a tent introduced into the tunica vaginalis; a seton passed through the sac; and injection of the sac with a stimulating fluid.

Of all these methods, that by injection is the one most commonly employed. It consists in injecting from a gum-elastic bag, if port wine and water is used, or from a small syringe if a tincture of iodine, into the sac, immediately after the trocar is inserted and the fluid drawn off.

The improvement in treatment consists in reducing the amount

of inflammation to the lowest possible standard—the object being to produce a closure of the sac by adhesion, and not by suppuration and granulation, as among the older surgeons. We pass by a consideration of the other forms of hydrocele, the treatment of all of which does not materially differ—the important point being to diagnose correctly.

The only other disease treated of in this work that we shall notice at present is *orchitis*. Inflammation of the testicle may be acute or chronic “and it may commence either in the body or in the secreting part of the organ, or in the epididymis. Inflammation beginning in the body of the testicle may be idiopathic or may be excited by external violence. Orchitis is far more frequently a consecutive affection than a primary.”

As this disease may arise from injuries to the testicle—such as blows, pressure on the pommel of a saddle, pressure in climbing a fence, a squeeze, as well as result from disease in neighboring organs and as a *metastasis* of mumps—we cannot see why it is exclusively treated of in works of surgery among syphilitic diseases. It is true it may owe its origin to gonorrhea, but we have witnessed cases of it in persons of undoubted chastity. Dr. Curling also protests against the classification thus most generally made. We wish we had space to insert entire what he says upon the nature and treatment of this affection. Being one of extreme pain, and causing the greatest apprehension in the minds of those afflicted with it, the nature of it should be well studied, and promptly treated. Our author says:

“*Symptoms*.—A testicle attacked with acute inflammation in a few hours becomes swollen, hard and tender, and feels heavy and painful. It increases to thrice or nearly thrice its natural size, and without alteration in its oval form. The enlargement is attended with a sense of weight which is increased in the erect posture. The pain is of a constant, dull, aching description, and extends upwards up to the loins, where it is often severe. It not unfrequently takes a reflex course, extending downwards to the hip, upper part of the thigh and crista of the ilium, in the direction of the branches of the different lumbar nerves. As the disease advances, the swollen testicle becomes so tender that the patient can scarcely allow the part to be touched, and cannot bear even the contact of the thigh. The scrotum is injected, red, hot, smooth, and slightly œdematous.”

Of course the constitution suffers to a greater or less degree.

In gonorrhœa orchitis, the disease most generally results from a suspension of the discharge, and gradually disappears on this being restored.

Treatment.—So actively inflammatory, of course, there is a demand for an antiphlogistic treatment.

Rest in the recumbent position, support to the testicle by a suspensory bandage is all-important. This is to be conjoined with low diet, and nauseating doses of tartar emetic. Our author prescribes tartar emetic in a camphor mixture, with small doses of sulphate of magnesia and tincture of henbane. At bed-time he used calomel and Dover's powder. If arterial excitement, great relief is obtained by the application of leeches to the part.

For local application, our author recommends lint dipped in water, or an infusion of poppy heads, covered with oiled silk to keep it moist.

Our author also uses ice in severe cases of acute orchitis. His plan is to keep the patient in bed, and support the gland with a crutch pad. Then enveloping fragments of ice in an india-rubber bag, or in a small bladder, apply it to the testicle, and maintain its effects by constant renewals. Under its use the scrotum contracts, the swelling diminishes, the pain and heat subsides. Its efficacy depends on its early application, and steady continuance for a period of from twenty-four to fifty-six hours. *Compression* has been also employed to facilitate the reduction of the swelling. For this purpose strips of adhesive plaster are made to encircle the swollen gland—a difficult thing to be accomplished. Coating the scrotum with collodion is also recommended.

After the acute stage passes into the subacute our author recommends Hydrarg. C. Creta with Dover's powder, night and morning; also a decoction of bark, or of sarsaparilla with the sixteenth of a grain of bichloride of mercury three times a day. In our practice, after we have allayed the intense inflammatory symptoms, we have resorted to painting the swollen gland with a strong tincture of iodine, once every thirty-six hours, and covering immediately with a hop poultice.

The treatment of chronic orchitis, differs from that of the acute in not requiring the active antiphlogistics—mercury being the

chief remedy. Our author in this chronic form uses the iodine ointment, or the tincture, besides the usual alterative course. We have not space to say more of this book. It deserves a place on every physician's shelf, for the diseases of which it treats are of frequent occurrence, and generally of such a nature that empiricism must give way to rational treatment. R. O. C.

ART. VIII.—*The Microscope and its Revelations.* By WILLIAM B. CARPENTER, M.D., F.R.S., F.G.S., &c. With an appendix containing the applications of the Microscope to Clinical Medicine, etc. By Francis Gurney Smith, M.D., &c. Illustrated by four hundred and thirty-four engravings on wood. Philadelphia: Blanchard & Lea, 1856.

The name of CARPENTER is so familiar to every student of physiology, and his reputation so well established, that it might seem a work of supererogation to speak a word in his praise.

So intimately dependent is the progress of physiology upon the revelations of the microscope, that our author, in this treatise, may be regarded as simply giving a minute description of the means of which he availed himself in his physiological investigations. And, like every other microscopical observer, he has found such an illimitable field of research opened to his astonished vision, and has been so strongly impressed with the infinite advantage to be derived from the proper use and employment of the microscope in every department of natural science, that, in this treatise, he shrinks from encumbering his volume with anything outside of an investigation into the physiological form and structure of animal and vegetable substances. The editor, Dr. Smith, supplies a very important appendix of fifty pages on the application of the microscope to clinical medicines, as a means of diagnosis, &c.

"It has been the author's object throughout, to guide the possessor of a microscope to the *intelligent* study of any department of natural history that his individual tastes may lead him to follow out, and his particular circumstances may give him facilities for pursuing."

In the introduction to the work, he gives a brief history of the microscope and microscopical research.

The natural sciences are mainly dependent for their success upon the perfection of *instruments*. Thus the *telescope* has established the science of *astronomy*, and so accurately coincides with the deductions of mathematics, that we find the two now linked together in every observation made upon the movements of the heavenly bodies. The telescope, therefore, serves to reveal to us heavenly bodies seen only by figures of mathematics; and the more perfect the instrument, the more glorious the revelations made by it. So with the microscope. The imagination might conceive a gradual diminution in size of animal and vegetable forms, till they became too minute for human vision, but not till the microscope was perfected were we disposed to believe that the animalcular world out-peopled, in number, the giants of earth. That drop of water, so like the crystal, teeming with life—and that crystal itself, so compact, so pure, so dazzling, the result of an infinite number of infusorial shields. These are the wonders of the microscope in the animalcular world.

In chemistry and mineralogy, the microscope displays to us the slow and regular marshalling together of the atoms to form the perfect and beautiful crystal. In chemistry, too, *instruments* contributed mainly to its rapid progress—for what would be this science without the apparatus which go to make up the laboratory?

As to the history of the microscope, the simple instrument was known from remote antiquity; but the compound instrument was the invention of the sixteenth century. From that period to the present there have been able cultivators of this science, and various instruments have been invented, each intended as an improvement on the preceding. These earlier researches tended to display animalcular life; and it was not till vast discoveries had been made in the invisible world, that the instrument was turned upon an investigation of the animal structure and organization. Thus physiology became a recipient of its important discoveries.

But it stopped not here. Pathology and *materia medica*, and clinical medicine sought its aid, and glorious have been the results. A few instances of the value of this instrument as a means of diagnosis we cull from the appendix by Dr. Smith.

He says, page 650: "Some years ago I was summoned to see a dispensary patient laboring under bronchitis, who was spitting florid blood. On examining the sputum with a microscope, I found the colored blood-corpuscles were those of a bird. On my telling her that she had mixed a bird's blood with her expectoration, her astonishment was unbounded, and she confessed she had done so for the purpose of imposition."

Thus every secretion—every fibre, fluid and solid-muscle and bone, skin and hair, has been subjected to the scrutinizing gaze of the instrument; and the different conditions in health and disease especially noted, so that now it forms a part of the appliances of every investigating student of medicine.

Our author says, page 63: "Among the erroneous tendencies which microscopic inquiry seems specially fitted to correct, is that which leads to the estimation of things by their merely sensuous or material greatness, instead of by their value in extending our ideas and elevating our aspirations. For we cannot long scrutinize the "world of small," to which we thus have access, without having the conviction forced upon us, that all *size* is but relative, and that *mass* has nothing to do with real grandeur. There is something in the extreme of minuteness which is no less wonderful,—might it not almost be said, no less majestic?—than the extreme of vastness. If the mind loses itself in the contemplation of the immeasurable depths of space, and of the innumerable multitudes of stars and systems by which they are peopled, it is equally lost in wonder and admiration when the eye is turned to those countless multitudes of living beings which a single drop of water may contain, and when the attention is given to the wondrous succession of phenomena which the life-history of every individual among them exhibits, and to the order and constancy which this presents; still more is this the case when we direct our scrutiny to the penetration of that universe which may be said to be included in the body of MAN—or of any one of the higher forms of organized being—and survey the innumerable assemblage of elementary parts, each having its independent life, yet each working in perfect harmony with the rest, for the completion of the numerous aggregate which the life of the whole presents. In the study of one class of phenomena, no less than in the survey of the other, we are led towards that Infinity, in comparison with which the greatest and least among man's regard are equally insignificant; and in that Infinity alone can we seek for a Wisdom to design, or a Power to execute, results so vast and varied, by the orderly co-operation of the most simple means."

Our author then proceeds to discuss the optical principles of the microscope, in which he describes the action of single and of compound microscopes.

Among *simple microscopes*, he enumerates and describes Ross's,

Gairdner's, Fields's, and Queckett's dissecting, all of which, of course, differ more in construction than anything else. Of *compound microscopes*, he describes Field's, Highley's hospital, Nachet's, Smith & Beck's student's, and Smith & Beck's dissecting; Warrington's universal, Ross's large compound, Powell & Lealand's, and Nachet's binocular. Each of these instruments are illustrated. Then the apparatus necessary to these instruments are fully described, after which our author proceeds to give an account of the management of the microscope, and the preparation, mounting and collection of objects. Here he lays down many valuable rules which we have never before seen in any work so well said. We regard these rules as invaluable to the student, and of themselves worth the price of the volume.

Having thus minutely described the means, he next turns to the results. With the apparatus, he is not at a loss to scrutinize every form of vegetable and animal life.

Beginning his investigations with the vegetable kingdom, our author endeavors to establish the line of demarkation between the vegetable and animal kingdoms,—a line, the territory adjacent to which has been strongly contended for by the advocates of both kingdoms—the naturalist and the botanist. Our author determines this line by the manner of feeding possessed by the organized beings who inhabit this border country. The line of distinction consists not in the presence or absence of spontaneous motion, as was once supposed, but “in the dependence of the being for nutriment upon *organic compounds* already formed, which it takes (in some way or other) into the *interior* of its body, or in its possession of the power of obtaining its own alimentary matter by absorption, from the *inorganic elements* on its *exterior*.” It is this distinction which we see running through all grades of vegetable and animal life. Vegetables feed on *inorganic* matter taken in by absorption, either through the delicate spongiforms at the extremity of each root, or through the pores on its leaves and green twigs. These inorganic elements thus absorbed are eliminated in the plant, worked up by a process into sweet gums, valuable resins, fragrant odors, delicious fruits, and healing barks, adapted to the physical well-being of animals. They

depend upon the food thus prepared for them from the mineral kingdom. The food of the one is, therefore, *inorganic* and derived by *absorption*, that of the other is *organic* and taken *internally*.

All vegetable matter, from the lowest to the highest and most complicated form, consist of cells—and as Schleiden says, “it is in this *life-history of the individual cell* that we find the true basis of the study of vegetable life in general.” To this elucidation has the microscope been most successfully directed. It has revealed that the cell is a membranous bag or vesicle containing fluid cell-sap; there being, therefore, two parts—the *cell-wall* and *cell-contents*.

Our limits will not allow us to follow our author minutely in his walk through these interesting paths—pleasant as it has been to peep through his microscope and read his interesting accounts of the various tribes of *protophytes*; especially those two varieties, the desmideaceæ and diatomaceæ—each of which are capable of multiplication by self-division. Of the diatomaceæ, most extensive deposits are found in many parts of the world. They inhabit either fresh or salt water, “there being hardly a road-side ditch, water trough or cistern that will not reward a search, and furnish specimens of the tribe.” Their epiderms are perpetuated in the silicious strata of Europe, and of the United States—in the chalk of France, and in the “infusorial earth” of Richmond, Virginia. Each tribe of protophytes claims its share of attention from our author, and he gradually emerges from the invisible world of plants to those which our vision can measure. Thus he applies his wonder-displaying instrument to lichens and mosses—to fungi and hepaticæ—to ferns and equisetaceæ, displaying in perfectly delineated engravings their peculiar and interesting structure and organization. And from the cryptogamic he passes on to the phanerogamic plants, describing their microscopic structure—as in the cellular tissue, woody fibre, bark, leaves, flowers, petals, anthers and pollen-grains, ovules, and seeds—a chapter as important as any in the book.

Next comes the forms of *animal life*—in the consideration of which he ascends the scale from the *protozoa* and animalcule zoophytes and polyzoa to the complex structure of the higher animals, and of man.

Another chapter is devoted to the application of the microscope to geology, where it is seen that animals long since extinct, and now existing only in fossil remains, may be studied minutely, and the structure and habits of the animal as well ascertained as if it was an inhabitant at the present state of things.

But we must here close our review of this highly interesting volume, only regretting that our limits have compelled us to generalize so much concerning it, and not permitted us to follow our author through each special inquiry into vegetable and animal forms.

We might here say more of the appendix of Dr. Smith, which to a student of medicine renders the book that much more valuable.

In conclusion, we would inform our readers who desire to pursue microscopic investigation,—and who, possessing the facilities, would not wish to do so?—that microscopes of great elegance and power are manufactured in this country. Spencer's Trunion Microscope which may be obtained at prices varying from \$200 to \$350, while other instruments of this manufacture may be had as low as \$75. Queen's Microscope, and J. & W. Grunow's Student's Microscope are peculiarly adapted to students, as to price and power. The Inverted Microscope of J. Lawrence Smith, of the Louisville Medical School, is an instrument of fine powers and great elegance—possessing advantages not enjoyed by other instruments.

We hope we have said enough to create a thirst for more—to gratify which, our readers will get the book itself, and they will not regret the time spent in reading it.

R. O. C.

PART III.
MONTHLY MEDICAL RECORD.

MATERIA MEDICA AND PHARMACY.

(*From the London Lancet.*)

1. *On the the Effect of Belladonna in Arresting the Secretion of Milk.*—By R. H. GOOLDEN, M.D.—As nothing is read with greater interest by practical men than your reports of clinical facts, I hope I may claim a corner in your journal, at as early a date as convenient, to relate the following cases, illustrative of the effect of belladonna in arresting immediately the secretion of milk.

E. J——, aged twenty-eight, was admitted into Anne's Ward, St. Thomas's Hospital, with severe rheumatic fever. She had been ill four days, with a child at the breast four months old. At the time of her admission she had swelling and acute pain in both wrists, right elbow, knees, and left ankle. The knee-joints were distended with synovia, and erythematous patches were on the skin of the knees, ankles and wrists. She was bathed in perspiration, and the secretion of milk was abundant. According to the regulation of the hospital, the child was removed; indeed, from her helpless condition, it was necessary, considering the difficulty of attending to an infant in a ward with other patients. Soon after her admission she took eight grains of calomel and a grain and a half of opium, followed by a senna draught; and one scruple of nitrate of potassa, and half a drachm of spirit of nitric ether, in peppermint water, every four hours. The joints were covered with cotton wool.

On the following day, at two o'clock, I found she had been freely purged; the joints were in nearly the same state. She had had no sleep. The breasts had become tumid, hard, painful, knotty, and extremely tender. The superficial veins were distended. Some milk had been drawn, but the process was attended with great pain, and we could not listen to the heart's sounds on account of the tenderness.

A milk abscess, in complication with rheumatic fever, was of all things to be avoided, and unless the secretion could be at once arrested, it appeared inevitable. In this state I recollected that I had somewhere met with an observation (but I cannot remember whether it was in an English or foreign journal) that atropine applied externally to the breasts would dry up the milk; and thinking it reasonable, I caused the areola of the breasts to be smeared with extract of belladonna, in the same way that it is used to dilate the pupil of the eye. I likewise ordered the addition of half-drachm doses of colchicum wine, knowing that whenever milch cows eat the meadow saffron in the pasture they immediately become dry; and though I have not much faith in colchicum as a remedy in rheumatic fever uncomplicated with gout, there could be no objection to its use, and it has the sanction of much higher authority than my own.

On my third visit, the following day, the first inquiry was about the breasts. They were all right. But was it the colchicum or belladonna that had relieved them? The extract was used before I left the ward; before the mixture was given the secretion of milk had been arrested and the breasts had become soft. The rest of the case had no further interest. I will only state that there was no heart affection, and that the fever though very severe while it lasted was of short duration, and the patient left the hospital quite well in fourteen days.

The second case that occurred to me was uncomplicated with any disease, and such as would usually fall under the care of the accoucheur rather than the physician.

A lady, the wife of a clergyman, was travelling with her husband, and, in order to accompany him, had weaned her baby (then seven months old.) Happening to be at Oxford at the commemoration festival, he came to me in great trouble telling me that his wife had done a foolish thing in weaning the child, and that they were now arrested in their progress in consequence of the state of her breasts. They were tumid, very tender, painful, and hard, with large superficial veins, and the milk had been drawn with difficulty several times with temporary relief. I recommended the application of the extract of belladonna to the areolæ, desiring them to send for a medical practitioner if the inconvenience did not immediately subside or unless she felt quite well. A few days brought me a letter, giving a very satisfactory account, and thanking me for what she was pleased to call my wonderful prescription. Within two hours she was perfectly relieved, the milk absorbed, and (what is very important) there was no fever or other inconvenience attending the sudden suppres-

sion of the milk; and, instead of taking the opening medicine I had prescribed for her, she continued her journey next morning.

I have not been able to discover the fact that belladonna is available for the purpose of arresting the milk secretion is at all generally known—certainly it was not to several accoucheurs in large practice of whom I have inquired. The fact is important if true, for then milk abscesses will become a matter of past history, and probably many diseases of the breast may be rendered less complicated by its use.

The two cases I have detailed are not sufficient to prove that it will always be either successful or safe, but they render it highly probable that it is so. My assertion may have a temporary interest, and soon be forgotten, and the opportunities of observing milk abscesses, and their early progress, do not occur with such frequency to a hospital physician, even in private practice, as that I may hope to bring together a sufficient number of facts to lay them before you. The fact has already been noticed, and if you will invite others who have more opportunities of special observation to try the experiment, and give you *short extracts* of cases bearing on the subject, with the names of observers, I am sure you will confer a favor on the profession.

PRACTICAL MEDICINE AND PATHOLOGY.

(From Transactions of College of Physicians of Philadelphia.)

2. *Acetate of Lead in Yellow Fever.*—By GEORGE B. WOOD, M.D.—Dr. Wood made some remarks on the use of acetate of lead in the treatment of yellow fever. It is well known that the first stage of the disease consists in one long, continuous febrile paroxysm, which, after a duration of one, two, or three days, rather suddenly subsides into a period of apparent remission, which is really the period of the greatest danger; the patient, in bad cases, being much prostrated, and often throwing up large quantities either of pure blood, or of altered blood in the form of black vomit. Of course, in a great many cases the blood is irreparably poisoned, and all remedies are of no avail. But there are others, in which the chances are about evenly balanced between life and death, and in which the occurrence of gastric hemorrhage might turn the scale against life by increasing a debility already as great as the vital forces are adequate to struggle through. Now in such cases there is a strong indication to prevent this hemorrhage. Besides, in the same stage, there is a species of

inflammation of the gastric mucous membrane, as indicated by the exquisite epigastric tenderness during life, and the appearances presented after death. This strongly tends to a disorganization of the tissue, and to that effusion of altered blood, so well known, and so much dreaded under the name of "black vomit." Dr. Wood believes that this discharge is not attributable solely to the state of the blood, but somewhat, also, to the condition of the mucous membrane. Here then is another indication; namely, to obviate the phlogosed condition of the membrane, to empty, as far as possible, the inflamed vessels of the blood that was distending them, and thus give them some opportunity of resuming their healthy functions.

Now he knows no medicine so well calculated to meet these two indications as the acetate of lead, at the same time an energetic astringent and a decided sedative. This remedy, so long since as 1820, was recommended and employed by Dr. Irvine, of Charleston, S.C., and Dr. Wood having had several opportunities of trying it under the circumstances mentioned, is satisfied that it should receive further attention, and more ample trial. He does not suppose that it will cure all cases. He should despair of a cure from it after black vomit had fairly taken place. But with his present views, he considers it as probably having the power of preserving life in some cases, and as deserving of the notice of the profession.

Attention is necessary to the *period and circumstances of its administration*. It should be commenced with, at the earliest signs of the approach of the second stage. This is highly important, as after this it will probably be too late. It should be given in doses of two grains every two hours, without the accompaniment or simultaneous use of any other substance that might serve to decompose it; and should be continued steadily until thirty-six grains have been taken. The use of the acetate does not preclude the application of leeches or a blister to the epigastrium, one or both of which Dr. Wood has employed in all the cases in which he has used the remedy.

Dr. Condie had had the opportunity of witnessing the employment of this remedy, which was given rather to arrest than to prevent black vomit, and it was found to be quite useless. He thinks oil of turpentine exerts some control over the symptom in question, and this he believed was in accordance with the observations of others. His own results and those of other professional gentlemen, from the use of acetate of lead, also perfectly coincided.

Dr. Levick spoke of some peculiarities in one of the cases re-

ferred to by Dr. Wood. The patient came from a healthy locality, and merely passed through the infected places. With him were three other persons, who all escaped the disease. He was attacked just two weeks after passing through the town of Jackson, where yellow fever prevailed, and also after frost had occurred there. The phenomena of invasion were also remarkable. First, an attack of cholera morbus produced by indulgence in eating oysters, followed by urticaria, which disappeared, and the indisposition seemed to be at an end. On the next day at noon, he was seized with a chill, and in the afternoon the nettle-rash re-appeared. This was the commencement of the yellow fever, and the next day the conjunctivæ were injected and jaundiced. There was great epigastric tenderness, and the patient shrank from the least pressure upon this region. His pulse was 120; he had no pain in the back, but severe pain in the head whenever he moved.

Dr. Emmerson referred to the importance which is attached to tenderness of the epigastrium by practitioners in New Orleans as a distinctive mark of yellow fever. It is usual for this region to be sensitive in the various grades of bilious fever; but the acute tenderness, the shrinking from contact that had been mentioned, appeared to be peculiar to the disease at present under notice.

Dr. La Roche observed that the absence of lumbar pain was a peculiarity of the late epidemic, both here and at the south. The epigastric tenderness is not always excessive. In most cases, too, it is not developed till the third or fourth day. The late Dr. Monges was of opinion that in bilious fever this symptom makes its appearance earlier. In a case recently observed by Dr. La Roche there was no sensitiveness of the epigastrium to pressure. This, it is true, was a case of relapse in consequence of great errors of diet. The symptom in question, it must be acknowledged, does really exist in a majority of cases, while at the same time it cannot be regarded as essential or pathognomonic.

Dr. T. H. Bache spoke of the prominence of this symptom in twenty-three cases which he studied at the Pennsylvania Hospital, in 1853, as contrasted with a number of cases of bilious fever in the institution at the same time, in none of which did such extreme sensibility of the epigastrium exist.

Dr. Wood remarked as a peculiarity of this symptom, that patients who manifested it seldom complained of spontaneous suffering in the stomach. The pain appeared to be excited by external pressure alone.

Dr. Jewell saw two cases during the late epidemic, in neither

of which was there any great degree of epigastric tenderness, and in neither was there much pain in the head or back. One of the cases was very mild.

OBSTETRICS.

3. *Treatment of Menorrhagia.*—Dr. Thomas A. Mitchell of Dekalb, Crawford county, Ohio, has published in the *Medical Observer* a favorite prescription and expresses a hope that the profession will give it a trial in the treatment of Menorrhagia.

(Use official preparations.)

Ry.	Tinct. Gum Kino	.	.	.	3ij.
	" Cort. Cinnamon	.	.	.	3j.
	Pulv. Sulph. Cupri.	.	.	.	3j.

M. Ft. Solution.

Dose, ten drops of the solution three times a day in a little sweetened water. Increase or diminish the quantity of the Sulph. Cupri., according to the urgency of the symptoms or as the patient will tolerate.

4. *Collodion for Sore Nipples.*—Dr. Simpson says: "in two cases I lately united the edges of the fissures, and covered them over with the solution of gun-cotton, making the layer pretty strong. It acted successfully, maintaining the edges so firmly together that they were not again re-opened by the suction of the infant. The gun-cotton dressing is not, like other dressing, affected by the moisture of the child's mouth; and at the same time, by securing rest to the part, it allows complete adhesion and cicatrization speedily to take place. It is improved by the addition of a little olive oil."—*Memphis Medical Recorder*.

PART IV.
EDITORIAL AND MISCELLANEOUS.

ARTICLE FOURTH.

We direct the attention of our readers especially to Article Fourth of this number. *Justitia fiat, ruit cælum.* It has been conceded on all sides, that Dr. Deadrick was the originator of the operation described,—and like the discovery of Columbus, once demonstrated, a pathway was opened up in which any other skillful operator could navigate.

PREMIUM TO ADVANCE SUBSCRIBERS.

We will forward a copy of our book on the *Geology of Tennessee*, as soon as published, to every subscriber who will pay for the *Journal* on the reception of the first number.

We will also send, to all such, the *Journal*, free of postage.

COMPLIMENTARY.

Reese's American Medical Gazette noticing the re-appearance of this *Journal*, says of its former issues, "*it was among our best exchanges.*" And so it shall be yet.


The *Southern Medical and Surgical Journal* says: "This excellent *Journal* has for a short time disappeared from our list of exchanges from causes not affecting its soundness financially or otherwise. We are glad to welcome it again, and wish it uninterrupted success." We will endeavor to merit it.


GEOLOGICAL MAPS.


Through the kindness of Moses White, Esq., the representative from Knox county, we have been put in possession of several hundred copies of the admirable map of our State Geologist, J. M. Safford, and we have accordingly presented a copy to each of our subscribers. It will enable those of them who have a fondness for geological studies, to understand more accurately our notes on the Geology of Tennessee.


TO SUBSCRIBERS AND PHYSICIANS.

We send out to subscribers accounts due for subscription, to which has been added the amount for 1857. Of those who do not wish to be continued as subscribers for this year, we specially request *that they will return this number*—at the same time, do not forget to remit for past volumes.

 Those who have paid for 1856, will find their accounts credited for one-half the subscription on 1857—as we issued only a half volume in 1856.

 To all who will pay on the reception of this number, the *Journal* will be sent for the year *free of postage*—besides they will receive a copy of our work ON THE GEOLOGY OF TENNESSEE, which is now in press.

 This number is sent to many who are not subscribers. We will be pleased to enroll your names on our book as PRE-PAID SUBSCRIBERS. *If you do not want it, return this number.*

 *North American Medico-Chirurgical Review* is the name of a new Journal, edited by Professors Gross and Richardson, now of Philadelphia. It is a union of the *Medical Examiner*, of Philadelphia, and the *Louisville Review*. We wish it success.

TO CORRESPONDENTS.

We solicit respectfully from the profession reports of cases in every department of medicine. To all who will thus favor us we will send *ten copies extra* of the form embracing their article, if desired.

After the present number we will only occupy a few pages with a continuation of our articles on Geology—and not a whole form as heretofore. Our aim will be to make our Journal more decidedly practical than otherwise. At the conclusion of our Geological Notices, we design continuing the subject in *its application to Medical Topography*.

EPIDEMIC OF TYPHOID FEVER AT RUSSELLVILLE.

For several weeks past (January 10) a very fatal typhoid epidemic has been prevailing at Russellville, Jefferson county, Tenn. In some instances whole families have been prostrated, one after another succumbing under the disease. The only resident physician, Dr. Snapp, a gentleman of scientific attainments, in the midst of his arduous labors, was called to mourn over the death of his wife. We extend to him our heart-felt sympathies for his loss. Medical aid went from this city and Rogersville, but from last accounts the epidemic was still prevailing.

PRIZE ESSAY.

We republish for the benefit of all whom it may concern, the resolutions adopted at the Spring Session of 1856, of the East Tennessee Medical Society, and it is to be hoped that there are those who will compete for the prize.

A committee reported and recommended the passage of the following resolutions, which were adopted:

Resolved, That this society offer a prize of a silver medal to the author of the best original Medical Essay, on any subject connected with the medical sciences.

Resolved, That all essays offered in competition for the prize must be forwarded to the chairman of the committee by the 22d of Feb-

ruary, 1857; each essay to be accompanied with a sealed paper containing the author's name and superscribed with the same motto designating the essay.

Resolved, That the essay to which the prize shall be awarded, shall have its author declared by the opening of the sealed paper at the semi-annual session of 1857.

Resolved, That Physicians throughout East Tennessee be invited to compete for the prize.

AMERICAN MEDICAL ASSOCIATION.

The tenth annual session of the American Medical Association will be held in the Hall of the House of Representatives in the city of Nashville, Tennessee, on the first Tuesday of May next. A full delegation should be sent from every county in Tennessee. At present there are not more than a half dozen Medical Societies in the State, but there is no reason why one may not be organized in every county.

OBITUARY RECORD.

DR. BOYD McNAIRY.

It falls to us to record the death of one of the senior members of the profession in Nashville.

Dr. Boyd McNairy died, after a lingering illness, during the month of November last. He had been engaged actively in the practice of medicine for a half century in the city of Nashville, highly esteemed for his social qualities, his gentlemanly deportment and scientific attainments. As a physician, he was kind, attentive and successful, always observing to maintain the dignity of his calling. His name, in connection with that of two others yet residing in that city, Drs. Robertson and Waters, is associated with our earliest recollections of physic. Others there were, but years ago they were stricken down under the frosts of age. When we recall the names of Robertson, McNairy, Waters, Higginbotham and Roane, as the pioneers of medicine in Nash-

ville, we see a band of which any community might be proud. Two lordly oaks still remain to weather the storms of a few more winters.

ROBERT MASSENGILL PORTER, M.D.

We have not had an opportunity heretofore of recording the death of our friend and former associate Robert M. Porter, M.D., Prof. of Anatomy in the University of Nashville.

He was our playmate in boyhood, our roommate and classmate in college, and though, since arriving at manhood, our lots and fortunes have been cast in different spheres, yet being engaged in the promotion of the same profession, in our occasional interviews, we have ever found him actuated by the same kindly, honorable and moral principles which characterized him in our closest associations.

By birth a citizen of Nashville, she did well to mourn for the loss of a son whose prospects in life seemed so fair, and whose career seemed linked with her own prosperity. Dr. Porter was a graduate of the University of Nashville, belonging to the class of 1836, of which we were a member, but it was not till 1843 that he entered upon the study of medicine.

Just after graduating in 1836, he entered the law department of Harvard University, where he remained two years preparing himself for the bar. Receiving the degree of Bachelor of Laws, he went to Louisiana, where he remained one year in the office of Judge Porter.

Loosing a beloved companion, Mary Wharton, daughter of William Williams, Esq., of the vicinity of Nashville, after only four months of conjugal felicity, in 1840 he entered the Theological Seminary at Princeton, New Jersey, and in three years completed the entire course of instruction. But his retiring disposition, and his diffidence for speaking in public, induced him to relinquish his intention of entering the christian ministry, but on the contrary to prepare himself for the practice of a profession nearest akin to that of the ministry. He accordingly went to Philadelphia in 1848 and put himself under the instruction of Prof. Hugh L. Hodge, and in 1845 was admitted to the degree

of M.D. Proceeding immediately to Europe, he remained principally in Paris till the autumn of 1847, diligently perfecting himself in the various branches of medicine.

On his return, he selected his native place, as his future home and entered upon the practice of his profession. In 1852 he was united in marriage to Mrs. Felicia Grundy Eakin, of Nashville. In 1851 he united with other physicians in the city of Nashville in organizing the medical department of the University. After five years of labor, and while prosecuting the summer course of 1856, he was suddenly taken sick, and "with a perplexing complication of symptoms he died on July 18th." "The case was doubtless rendered fatal by the imbibition of a blood—poison taken into the system, May 27, from dissecting an offensive subject, while lecturing to the summer class then assembled." But he had, before being called off from the scene of his labors, the gratification of seeing his project succeed.

Thus has passed off *in the prime of life*—for he was only 38 years of age—a noble and a good man. In this bereavement we extend our sympathies to his surviving companion, and offer to her the consolation of that religion which adorned his life, and gave him a triumph in death.

R. O. C.

ADDENDUM.

ART. IX.—*An operation for the removal of a Uterine Tumor, together with the extirpation of the entire organ, and its appendages.* By WILLIAM J. BAKER M.D., Knoxville Tennessee. Assisted by Drs. James Rodgers, James H. Sawyers, and John M. Boyd. (*Reported by Dr. Boyd.*)

Matilda, a negress, servant of Mrs. Laura Bearden of this city, married, but without children, has been occasionally, since the year 1851, under treatment for inflammation of the os uteri.

In March she became pregnant, but aborted in the latter part of April. She has always suffered from dysmenorrhœa. With these exceptions her general health had been good, previous to October, 1855. About this time, she states that she began to feel a lump in the right iliac region. Nervous disturbance began also to be more distressing.

In June, 1856, was requested to see her. Found her suffering severe pain in lumbar vertebræ and thence through the pelvis, with usual symptoms of dysmenorrhœa; the disturbance of the nervous system amounted to hysteria. There was retention of urine, and the catheter was used, and a copious amount of urinary secretion secured. The abdominal tumor was noticed, and upon inquiry it was found to be of eleven months standing.

She had been under the impression that she was pregnant. It occupied all the hypogastric region and a portion of both iliacs, inclining decidedly to the right. It is firm to the feel, somewhat moveable, and reaches upwards to within two and a-half inches below the umbilicus. An examination per vaginam reveals a slightly nodulated surface, far back between the promontory of the sacrum and the uterus.

The womb is pushed forward, and is evidently retroverted. The os high up behind the pubis.

The speculum shows the tissue visible, to be in a healthy condition. The os, however, cannot be grasped by the valves of the speculum. From this time forward she was under treatment, it being sought by remedial measures, local and constitutional, to retard or check the growth. In every succeeding menstrual return, medical interference was necessary to palliate her sufferings. Each time the catheter was used to obviate retention, and purgative medicines were indicated. The menstrual discharge continued for thirty-six hours, but was in small quantity, and of a black appearance.

In August, another and serious inconvenience manifested itself, viz.: constipation, which rendered a frequent necessity for laxative medicines.

During *the period*, the rectum became irritated, and in one instance, positive inflammation supervened.

From 10th of October, constitutional derangement grew rapidly and steadily worse. Previous to this time, she had enjoyed at least an immunity from pain. Now it was constant, and frequently excruciating. The pain was described as dull, heavy and aching in the pelvis, but sharp and lancinating from the sacrum to the dorsal vertebra.

Depression in the tone of the nervous system was more rapid.

Hysteria exhibits itself frequently and slight causes produce paroxysms. The appetite is very much impaired, morbid and irregular, and she sleeps, really, for nights successively, scarcely at all. The tumor feels in size through the abdominal parietes, as the pregnant uterus of seven months.

There is a well marked protuberance in the right lumbar region. This protuberance can, by kneading, be moved over as far as the mesian line, a distance of two and a-half inches.

To the touch, the womb not only feels heavy, but offers to the finger a degree of elastic resistance. It reveals also a gradually extending irregular surface. The mammæ are enlarged. The areola has increased in area and in depth of color, and there is a secretion of milk. Depraved appetite and longing is marked. She insists that she has felt motion as of a fœtus in utero.

A sound was introduced in the womb, to determine the size of its cavity. It was introduced with difficulty, and met the walls of the fundus two inches from the os.

Convinced that nature could not long resist the ravages of the above mentioned conditions, but must soon yield to such mischief at work, an operation to remove the tumor was proposed. Diagnosis could not determine whether or not the tumor had grown from the matrix, or some contiguous point. It was certainly attached to the womb, but whether the base was fixed from origin and growth was only conjectural. Drs. Rodgers and Sawyers having been called in consultation, examined carefully the case and concurred in the propriety of an operation for removal.

Friday, November 6.—Menstruation came on in usual quantity, and with usual increase of grievances.

It was determined to operate on the following Thursday, November 13. At 10 o'clock A.M., Drs. Rodgers and Sawyers kindly assisting, the patient was anæsthetized. Chloric ether was administered by Dr. Sawyers in the outset, but its action was very tardy, and chloroform was substituted. In a few minutes thorough insensibility was procured, and the operation was commenced by making an incision from the umbilicus to the pubes in the linea alba. So soon as the division of the abdominal

walls was complete at the middle portion of the incision, the protuberance of the tumor came out. Upon attempting to lift it, a portion of the tumor was found to extend above the umbilicus, whereupon the incision was extended $1\frac{1}{2}$ inches higher avoiding the navel. The upper portion of the tumor could now be raised, and by turning out the bowels, it was discovered to be attached to the sacral and lumbar vertebral regions by extensive and pretty firm adhesion. It was also found that the ovaries and uterus were so involved that separation was quite impossible. Indeed the uterine walls were hypertrophied, and distorted, and had become heterologous, and a portion of the tumor. The ovaries were involved only from contiguity, the peritoneal covering adhering. Now, either the tumor must be returned, be but partially extirpated, or womb, ovaries and tumors, brought away.

After a few moments deliberation it was determined to excise the whole. Accordingly the serous adhesions were torn or dissected up. The ligaments were severed until the mass was attached only by the vagina as a pedicle. A needle, armed with a ligature, was now passed through the cervix, and the lateral halves constricted tightly. The cervix was divided immediately above the ligature, and the mass removed.

The pedicle was brought to the lowest point of incision and secured. The wound was closed by the interrupted suture.

There was probably left of the neck and cervix from the os to the ligature half an inch—the section being made at a point just above the juncture of the vaginal walls to the neck. During the progress of the operation, but one artery required ligation, viz.: the spermatic of the left, when the broad ligament was cut. There was no hemorrhage from that of the right side. The venous hemorrhage probably amounted altogether to $\frac{3}{4}$ x. The patient bore chloroform remarkably well. The tumor and parts excised, weighed 46 ounces avoirdupois. It is of a fibrous nature, but its character will be more definitely given, when it shall have been submitted to microscopic examination.

A glance at the condition of the patient, for several consecutive days, is appended. As soon as she had come out sufficiently

from the effects of chloroform, 100 m. tinct. opii. were administered and an *opium to narcotism treatment* adopted. Peritonitis was of course anticipated, and dreaded. It was sought by narcosis to control the peristaltic action, or to "put the bowels in splints." Ordered, grs. ij. opium, every 4 hours, together with tinct. valerian ʒj. when necessary to quell nervous excitement.

November 14th, visit 8, A.M.—Pulse 98; skin natural; slight thirst; tongue looks pretty well; has occasional spasm of the bowels; kidneys active, but urine of a darkish red color. Ordered a continuance of the opium.

4, P.M.—Pulse 108; tongue rather dry, with a heavy coat; skin hot and dry; some restlessness; kidneys have acted freely; urine improved; some distention of abdomen. Opium continued. Sodæ bi. carb. given in drink. Barley water allowed.

15th, 8, A.M.—Pulse 98; skin pleasant; slept more comfortably last night; tongue coated white, but cleaning; kidneys acted twice last night; secretion more natural. Continue same prescription.

6, P.M.—Pulse 103; skin pleasant; great tympanitic distention; knees drawn up; nausea and jactitation; incision is discharging pus, healthy in its character.

Fresh adhesive plaster applied; cold cloths applied to abdomen; opium continued.

16th, 8, A.M.—Pulse 86; tongue more moist, but very white; secretion of kidneys improved in quantity and quality.

Some eructations with occasional singultus. Prescription continued.

November 17th, 8, A.M.—Pulse 108; epigastric region much distended; frequent eructations; abdomen less swollen, and softened; pus looks laudable, but has a fetid odor; breath offensive; has had slight action from bowels; kidneys doing well, ordered carbon 20 grs.; beef tea occasionally.

Ry. Chloride soda - - ʒj.

Aqua destillata - ʒvij., to be applied to the wound. Opium continued.

18th, 8, A.M.—Pulse 108; rested badly last night, but was not in pain; kidneys active; abdomen reduced smartly; opium

discontinued; carbon and mag. advised; is allowed chicken water.

19th, 8, A. M.—Pulse 108; has had two actions from the bowels; tension and swelling greatly reduced; pus is healthy and increased in quantity. Is allowed light diet. Mur. tinct. opii. to be given if there should occur pain or restlessness.

20th, 5, P.M.—Pulse 98; bowels and kidneys have acted; wound discharges freely; appetite slightly improved.

On the 23rd and 25th of November the sutures were removed. Wound healing nicely.

November 26.—It became necessary to adopt a tonic supporting plan of treatment. Ordered 12 drops aromatic sulph. acid in an ounce and a-half of cold infusion of chamomile, three times a day.

November 29th.—The pedicle ligatures came away.

December 3rd and 4th.—*The days that menstruation should have appeared* there was marked increment in severity of symptoms. Pulse 100 to 104; appetite failed; there was distressing nausea and vomiting; hysteria; pains in the abdomen; diminished urinary secretion and retention. Her aspect and condition were strikingly similar to that presented antecedent to, and during menstruation.

December 5 and 6.—She had recuperated considerably though it was necessary for several successive days to use the catheter.

From this time forward there was only occasional and slight interruptions to a gradual yet steady return to health. The wound, three fourths of it, had cicatrized. At the point where the pedicle was attached, there was a free discharge of pus and on December 20th, a string of dead areolar tissue was removed just from the locality of the pedicle. This core was, in extraction, broken in several places, but altogether measured four and a-half inches.

January 1st and 2nd, 1857.—Was rather more uncomfortable; *period for menstruation.*

January 3rd.—Is free from uneasiness; wound has healed almost entirely, discharge is very small. Is allowed to sit up, but not to walk farther than from the bed to the chair. She was to-day discharged.

ADVERTISEMENTS

Not incompatible with the character of the JOURNAL, will be inserted on the following terms. Those intended for one insertion must be accompanied with the cash:

1	page	one	insertion,	\$10;	six	months,	\$25;	one	year,	\$35.
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January, 1857.

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UNIVERSITY OF PENNSYLVANIA,
MEDICAL DEPARTMENT.

NINETY-FIRST SESSION—1856-57.

THE Lectures will commence on Monday, October 13th, and continue until the middle of March.

ROBERT HARR, M.D., Emeritus Professor of Chemistry.
 WILLIAM GIBSON, M.D., Emeritus Professor of Surgery.

SAMUEL JACKSON, M.D., Professor of Institutes of Medicine.
 GEORGE B. WOOD, M.D., Professor of Theory and Practice of Medicine.
 HUGH L. HODGE, M.D., } Professor of Obstetrics and the Diseases of Women
 and Children.
 JOSEPH CARSON, M.D., Professor of Materia Medica and Pharmacy.
 ROBERT E. ROGERS, M.D., Professor of Chemistry.
 JOSEPH LEIDY, M.D., Professor of Anatomy.
 HENRY H. SMITH, M.D., Professor of Surgery.

WILLIAM HUNT, M.D., Demonstrator of Anatomy.

Clinical instruction is given at the Pennsylvania Hospital, and at the Philadelphia Hospital.

Clinical instruction is also given, throughout the session, in the Medical Hall, by the Professors.

The Dissecting Rooms, under the superintendence of the Professor of Anatomy and the Demonstrator, are open after the middle of September.

FEES.

For the Lectures (each Professor \$15)	\$105 00
Matriculation Fee (paid only once)	5 00
Graduation Fee	30 00

ROBERT E. ROGERS, M.D.,

Dean of the Medical Faculty, University Building.

F. B. DICK, Janitor, University Building.

August, 1856.

EAST TENNESSEE
CHINA HALL,
 AND
HOUSE-FURNISHING EMPORIUM.
DIXON & WHITAKER,
 IMPORTERS,
 WHOLESALE AND RETAIL DEALERS IN
CHINA, GLASS, QUEENSWARE,
 AND
HOUSE-FURNISHING ARTICLES OF ALL KINDS,
 NEXT DOOR TO THE POST OFFICE BUILDING,
GAY STREET, KNOXVILLE, TENN.
 January, 1857. 1y TERMS, CASH.

MEMPHIS MEDICAL COLLEGE.

THE regular lectures of this College will commence on Monday, the 3rd of November, and continue for four months.

FACULTY.

JOHN MILLINGTON, M.D., Professor of Chemistry and Toxicology.
AYERS P. MERRILL, M.D., Professor of Principles and Practice of Medicine.
LEWIS SHANKS, M.D., Professor of Obstetrics and Diseases of Women and Children.
ARTHUR K. TAYLOR, M.D., Professor of Anatomy.
HOWELL R. ROBARDS, M.D., Professor of Surgery.
C. B. GUTHRIE, M.D., Professor of Materia Medica and Therapeutics.
DANIEL F. WRIGHT, M.D., Professor of Physiology and Pathology.
EMMITT WOODWARD, M.D., Demonstrator of Anatomy.

The fee for the entire course is \$105, payable in advance. Matriculation fee \$5; graduating fee \$25; Anatomy and Dissection \$10, to be taken once before graduating. Rooms open from the first of October.

A preliminary course of lectures, free to all students, and the public, by each Professor, on subjects connected with his department, which cannot be fully taught in the regular course, will be delivered during the month of October, commencing on Monday, the 13th of the month.

Clinical instruction is given twice a week at the Memphis Hospital. A city Dispensary Clinique has also been established at the College, at which operations are performed and cases prescribed for and lectured on daily.

The College possesses an ample Museum, and complete Chemical and other apparatus.

Students desiring further information will address Prof. L. SHANKS, M.D., Dean, or on arriving in the city call on him at his office on Main-street.

July, 1856.

L. SHANKS, M.D., Dean.

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
FEBRUARY, 1857.

PART I.
ORIGINAL MEMOIRS AND CASES.

ART. X.—*A Sketch of the Geology of Tennessee. Copper, (Continued.)* By RICHARD O. CURREY, M.D., Knoxville, Tenn.

For the want of recent statistics of the production of the Ducktown mines, I present the reader with an analysis of certain samples taken from ores boxed for shipment from several of the mines:

MINES.	COPPER ORE.	PER CENT.
Culchote.....	Green carbonate.....	21½
Cherokee.....	Red oxide.....	40
“.....	Black oxide.....	26½
Polk county.....	Black oxide.....	29½
Isabella.....	Black oxide.....	26½
Hancock.....	Red oxide.....	44
East Tennessee.....	Black oxide.....	20½
Hiwassee.....	Black oxide.....	22½
Calaway.....	Black oxide.....	28½
Eureka.....	Black oxide.....	24

A sample from 2,798 boxes shipped to London yielded 41½ per cent. at \$207.50 per ton, each box averaging 500 lbs.

The sample from 7,819 boxes sold in New York yielded 25½ per cent. at \$124 per ton of ore.

The sample from 7,819 boxes sold in Baltimore yielded 29½ per cent. at \$149.50 per ton.

Thus opening, one development after another has been made at these mines so rapidly, that they are regarded justly as the most valuable property in the State. An idea of their value may be presumed when it is stated that one mine is now in litigation in the United States court, at Knoxville, and its value estimated at two or three millions of dollars.

Fourteen mines have been opened, all of which have been worked to great profit, yielding monthly nearly 1,000 tons of ore, worth about \$100,000. By reference to a map of this District kindly furnished by my friend C. A. Proctor, Assayist for the State of Tennessee,* there will be noticed a regularity in the order of succession of these mines. It will be seen that there are at least *eight* distinct Copper veins, traversing that portion of the State, in a N. E. and S. W. direction. There are doubtless others, which future researches will develop.

A Geological examination of the adjoining country—into North Carolina and Georgia in 1854, convinced me that the Copper region about Ducktown was confined to a very small portion of territory within the south-eastern part of our State, their bearing soon leading the mine into North Carolina or into Georgia. Explorations have been successfully prosecuted by Prof. J. B. Mitchell on the North Carolina veins, while in Georgia, numerous companies have been formed who have worked

* See Geological Map.

the veins successfully. A report is now before me of these Georgia mines, made by Prof. C. U. Shepard, who presents the developments in a very flattering light. We learn that the Geological character of the country in which these mines are to be found—Cherokee county, Ga.—consist of alternate strata of hornblende slate, mica slate, talcochlorite slate and talco-mica slate, which possess a N. E. and S. W. direction, dipping at an angle of 22° to the S. E. The vein which has been opened lies between the talco-mica slate, and the chlorite slate, and had an outcrop of *gossan*, as is the case in the Ducktown mines. The geological character of these mines is the same as that which appertains to the veins of Copper ore to be found in North Carolina.

The Ducktown mines lie between strata of mica slate and ferruginous sandstone, and by reference to the map of these mines, it will be seen that there are several successive strata of these slates.

The gossan is the outcrop. This *gossan* is a porous oxide of iron. Its origin may be attributed to the action of water, washing out the more soluble salts of Copper, with which the iron was impregnated, which, sinking through the vein, left a deposit of the black oxide and Copper smut.

The order in which the different varieties of ore occur is quite uniform. Beneath the *gossan*, first the *red oxide* is turned up, then the *green carbonate*, with occasional specimens of *silicate*, then the *black oxide*, the *grey arsenical ore*, the *sulphuret* and lastly the *Native Copper* in lumps, or in arborescent masses between laminæ of mica slate or quartz rock.

By reference again to the map, it will be seen that the veins of ore are traced in straight lines; but instances occur in which cross veins exist. In 1854, I had the

pleasure of examining the appearance of one of these cross veins in the Isabella mine. The direct N. E. vein had been crossed by a vein bearing E. N. E. the effect of which was to push the direct vein out of its course, at the same time producing a fault in both.

Mineralogy.—The following description of the Ducktown ores is not inappropriate :

1. *Red Oxide of Copper*.—This ore immediately underlies the gossan, or when that is wanting, forms the upper surface of the vein. Specimens obtained from the Cherokee mine presented a beautiful crystalline appearance, the crystals being minute and lining the cavity of a mass of the impure red oxide or *tile* ore. The color of the crystals varied from deep red to a reddish silvery grey. The massive and earthy ore was of a brownish red. Sp. gr. 6. This ore is generally found to be very rich in metal, the two specimens assayed yielding an average of 43 per cent. When free from impurities this ore is composed of 89 per cent. of Copper and 11 per cent. of oxygen. Exposed to the air the beautiful red crystals soon tarnish, as was the case in the first opening of the Hiwassee mine, much to the discomfiture of the miners.

2. *Green Carbonate of Copper*, (green malachite.) —This is the ore next in succession. It occurs in the mines in a variety of ways, as in incrustations with a smooth surface, or in flat masses, and also in earthy lumps.

It has a light green color, which, when scratched, is a shade lighter. When crystals are found they present a beautiful appearance.

This variety of Copper ore is found in the mountains of Russia in immense compact masses. Being susceptible of a fine polish, it is worked into a variety of purposes, as slabs, mantels, &c. A fine polished specimen, nearly two

feet in diameter, was sent to the late Dr. Gerard Troost, some years before his death, and was kept suspended in a frame in his cabinet.

Sp. gr. of this ore is 4, and yielded from the Ducktown samples $21\frac{1}{2}$ per cent.

This variety dissolves with effervescence in nitric acid, without any residue, if pure.

3. *Silicate of Copper*, (chrysocolla,) is a rare variety, when found, generally encrusting some other variety, most usually the carbonate. It is composed of Silica and Copper, besides a mixture of other varieties.

Color, emerald green, of a deeper tinge on the surface than on the fresh fracture.

4. *Black Oxide of Copper*.—A variety of this oxide is called Copper smut. This is a valuable ore of Copper and is that which is most abundantly mined at Ducktown. In some of the mines I found it mixed more or less with portions of Copper pyrites.

It is of a dull black color, at times compact, but generally earthy or in masses. Its average yield, from all the mines is about 24 per cent. of metal, but if less mixed with other substances, it is capable of producing 60 per cent.

This may be regarded as the result of the decomposition of the superincumbent layers of ore and iron. When placed in heaps at the openings of the tunnels or shafts, the Copper pyrites contained in it readily undergoes decomposition, forming a sulphate of Copper and iron united with the oxide of Copper.

5. *The grey ore* is a mixture of Copper, antimony, arsenic, and iron with sulphur, and sometimes contains also an important trace of silver. It is of a steel grey color, and sp. gr. 5. If heated, the fumes of arsenic, or of antimony are readily perceptible.

6. *Sulphuret of Copper*.—This is regarded by all miners as the ultima thule of their hopes, being the most productive and valuable of all other varieties. It is regarded as inexhaustible, and has been reached in several of the Ducktown mines. It is simply a combination of sulphur and Copper. Color, lead or iron grey, sometimes tarnished black. Before a blowpipe, the sulphur is driven off, and a globule of Copper remains.

Exposed to action of air and moisture, it readily undergoes decomposition, forming sulphate of Copper, (blue vitriol,) in the same manner that sulphuret of iron yields sulphate of iron or Copperas.

Its sp. gr. is 5.6, and yields 35 per cent of metal.

7. *Native Copper*, generally in plates or masses, sometimes assuming arborescent and filiform shapes. That which has as yet been discovered at Ducktown is in the arborescent form. It is very ductile and malleable, and often contains a trace of silver. One specimen analysed, yielded decided indications of silver. As yet it is not found in sufficient quantity to be of any value.

So much for a mineralogical description of the varieties of Copper opened up at Ducktown.

Discovery of Copper in other Localities.—In the metamorphic slates, of which the range of mountains on the eastern boundary of the State is composed, especially between the micaceous slates and quartzose sandstones, all the localities of Copper yet discovered, have been found to exist. Although at no other locality besides Ducktown has the ore been found in quantity sufficient to render it valuable, yet the indications are in some places very favorable. Going north, along the western declivity of Unaka mountains, fair specimens of green carbonate of Copper and the black oxide have been found not far from Tellico Iron Works, in Monroe county. I have not per-

sonally examined that region, but a few years ago a box of very fair specimens was sent me by Dan'l. Welsh, Esq., one of the proprietors of the iron works, which presented favorable indications. There is another locality on the Tennessee river, near its passage through the mountain, where fine out-crops of *gossan* are found, but as yet no explorations have been made on that property. It belongs, if I mistake not, to several citizens of Knoxville.

From this point the metamorphic rocks disappear from our State, being confined to the eastern declivity of the mountain range, but again cross over near the corner of Washington county, and may thence be traced through Carter and Johnson to the Virginia line. I do not know of any discoveries having been made in these counties; but as the State Geologist says, "I can see no reason why valuable deposits may not exist within this range."

Assay of Copper Ores.—Dissolve a weighed portion of the pulverized specimen in a small quantity of nitric acid, chemically pure—to which add one-fourth its quantity of hydrochloric acid. After a complete solution is effected, evaporate the mixture to dryness, and dissolve the solid residue in distilled water. Taking a piece of polished steel, suspend or place it upright in a narrow test-glass; then filter the solution into the same glass, occasionally adding water to the filter, till the action on the steel plate entirely ceases. During the process of filtering, if any Copper is present it is seen coating the steel plate, being attracted to it by a galvanic process. From this it may be separated, dried and weighed, and the per cent. of metal ascertained.

In the first solution in nitric and hydrochloric acids, if any silver be present, it will be ascertained by being thrown down as a white curdy precipitate.

[TO BE CONTINUED.]

ART. XI.—*An Address delivered before the East Tennessee Medical Society, at its Semi-Annual Session, 1856. (Concluded.)* By SAMUEL PRIDE, M.D., of Maryville, Tenn.

The seventh clause of the second article of our National Code, on the duties of patients and physicians, very properly condemns officious intermeddling of the friendly or accidental visits of a neighboring non-attending physician. The practice is not indiscriminately forbidden, nor should it be; but the duty of proper and careful circumspection is clearly indicated and properly inculcated. Nevertheless, my limited observation has convinced me, that nothing but the strictest regard to professional courtesy, and a determined resistance to improper and ill-timed remarks or actions can avoid the production of mischief upon such visits. You may doubtless have witnessed how very different it is under such circumstances, to resist the anxious inquiries that most likely may be propounded; and how liable we unconsciously may be led to the utterance of remarks that may unjustly and improperly be construed, so as to diminish the confidence of the patient and friends in the skill and prescriptions of the attending physician. It is not necessary to this, that an open conflict of professional opinion should be avowed; on the contrary, a bare insinuation, a wise look, a grave shake of the head, or significant smile may be sufficient to produce irreparable mischief, and the dismissal of the medical attendant, and disturb and break up the friendly relations that should subsist between professional gentlemen. I once knew a young physician, of native genius, with a well cultivated mind, and rare attainments, who had been greatly assisted by a senior colleague in his introduction to the favorable notice and patronage of the public, who sought opportunities to make calls upon the patients of his medical associates, and his special friend amongst the rest, and who, invariably, on such occasions, made convenient to make remarks condemnatory of the treatment pursued.

Closely allied to this subject, and not inappropriate to be noticed on the present occasion, is the strong inkling sometimes

manifested, to listen to, and take sides with a dissatisfied patient, who, having recovered from his dependence, is now endeavoring to throw off his allegiance and renounce his obligation, by complaints at the exorbitant bill of his physician—or acting in complicity with the prejudice of some bigoted upstart who feels his competency to sit in judgment upon the skill and acquirements of a competing physician. I knew one professional knave, who often had occasion, from the preference of his patients, to require consultations, called to his aid. He had invariably two objections to either of two of his medical colleagues; the one was greatly the other's superior in skill, and in addition he personally preferred him, but then he was most extravagant in his charges; and by this uniform strategem, he often evaded or parried the desire of his patients to consult or employ either of them. And thus maintained an unmolested but unenviable sway in the territory of his empirical enterprizes.

As illustrative of the adroit and ungentlemanly intrigues of professional strategem, other instances may be referred to. Three medical men resided in the same locality, and practiced amongst the same people. It was very properly and plausibly proposed that certain rules should be drawn up, adopted and published, regulating and equalizing the fees of practice. A paper to this effect was proposed by one of the parties by request of the others—approved and adopted—and signed by the writer, and handed to the others for signature, and preparing copies for public use. Instead of a truthful confidence, that would have operated to the mutual benefit and advantage of the parties concerned, by equalizing the responsibility of fee bills, those two sagacious gentlemen, accomplished their own sordid and pitiful purpose, in what seemed to them, a more congenial and appropriate purpose, by using the paper thus obtained, and secretly exhibiting it through the country as evidence of a purpose to establish an ordeal by which to extort unreasonable and extravagant fees for his services.

Another mode sometimes adopted for the purpose of affording the evidences of rare skill in particular branches of practice, is that of expedients intended to operate upon the credulity of their patients. It is truly provoking to be forced to admit that there

could exist a gentleman of good moral standing, of reasonable intelligence and respectable attainments in his profession, and withal entitled to public confidence, who should resort to artifices of the kind to promote his claim to patronage. And with such an one it is not reasonable to suppose that such a course could be the result of a conscious reliance upon such opinions, or confidence in prescriptions emanating from them. The ignorant pretender and miserable quack might be excused for stratagems of the kind, but surely the enlightened and high-toned sentimental gentleman should not only disdain to be guilty of such gross violations of truthful propriety, but on the contrary, exert all the influence that position, and station afford to place the practice of his profession upon a more rational and liberal basis.

There are some who seem so totally absorbed by a single idea, that it might be inferred that they regarded all forms or modifications of disease as predicable for their origin, upon some one specific locality of the body, or that, to some one point alone should attention be directed, to ascertain the precise nature of disease. A gentleman of my acquaintance, of justly respectable standing in the profession, of considerable advancement in observation and experience, and commanding a pretty extensive and deserved range of practice, was so captivated with this idea, that he became proverbial in his practice among females, for subjecting his patients to the scrutiny of pervaginam explorations in all forms of disease, as best furnishing the means of a just pathognomonic diagnosis. Thus he was often known to subject them to such inquisition, when no clue existed by which to trace the disease to that organ, or any of its appendages. Once in his absence I was called to visit a young lady patient of his in the closing stages of phthisis pulmonalis, and who actually died shortly afterwards. On entering upon inquiries as to her situation, she informed me she was suffering with prolapsus uteri, and desired me to replace it, stating that the Dr. had invariably done so with certainty and success. I intimated my incredulity to the fact, and if it was so, the proposed manipulation could answer no profitable purpose. She persisted in the request, and to satisfy her mind and to ascertain the ground for so singular a

procedure, I complied with her wish. The result was as anticipated. The organ was in situ, and healthy and natural in all its relations. Yet she expressed a sense of relief from the operation; the result as I was fully satisfied of the strong impressions made upon her mind by the representations of her physician.

In my intercourse with obstetrical practice, I have often been amused, and surprised, and vexed at the revelations made to me as to the extraordinary skill of a prominent neighboring physician, in rectifying mal-positions of the fetus, in utero, or in *unravelling* a tangled umbilicus, or disincumbering the child from its dangerous coils, weeks before labor was expected to take place, and thereby saving the patient or her offspring from hazardous casualties, at the period of parturition. One lady feeling indisposed near her "expected time" called him in—he bled her—next day he turned the child, labor not having yet commenced, and the day following she had an easy and comfortable delivery. That gentleman is justly regarded as a popular and successful practitioner in this, as also in other branches of the profession.

Another vicious habit that finds abettors with too many in the practice of medicine, is that of adopting for his guide in prescribing, a purely routine course, requiring no intelligible pathological conceptions, no exercise of thought, in adapting remedies to the rational indications of disease, but on the contrary prescribing for a name, some favorite combination either of his own, or that has been found successful, and lauded and recommended by some distinguished medical man, whom he never saw, in some remote and different climate—or perhaps it is a compound, the elements of which he is totally ignorant, put up, patented, handsomely labelled as the panacea of some character in the livery of M.D., or bearing the high encomiastic recommendation of a respectable mechanic or the editor of a milliner's guide, as was recently seen, or a distinguished lawyer, or politician or peradventure a reverend D.D., or president of a college, to give success to its otherwise questionable virtues. Thus practically exemplifying the Egyptian laws, which obliged physicians to adopt in all cases, the prescription which had been collected and approved by the physicians of former ages. From such sources

perhaps we may be indebted to some extent, for many facts in relation to the agency of remedies. But surely we have sufficiently emerged from the periods of superstition and credulity, and the profession of medicine sufficiently advanced in intelligence, as to be regarded in the more favorable light of a rational and systematic science, entitling it to a firmer reliance, than upon the "Homœopathic Family Assistant," the Morrison Humbug, or any appeal to the love of the marvelous, as is done by the advocates of the various nostrum mongers, and the thousand and one forms of quackeries and empiricisms, which may boldly, impudently, and falsely urge their claims, or like Hahnemann, insinuating, that his theory was a direct revelation from God to save mankind from the miseries inflicted by the orthodox practitioners. Until medical men themselves shall rely more upon their own resources and the rational means of a correct medical literature, and the observations of progressive experience, and cease to countenance a dalliance on such unphilosophical subtilities, we may not reasonably hope to place our profession in the position it should occupy in the estimation of the public regard.

As no one can complain when a physician chose to expose his own errors, I shall relate an incident illustrative of the folly alluded to, that took place in my own practice. During the prevalence of the Cholera in your city in the latter part of the summer of 1854 a feverish alarm seized the inhabitants of our entire section, and every village in your vicinity, at least, was anticipating its approach, the public newspapers abounded with the favorite recommendations of distinguished medical men, many of them too, varied, either in kind, or quality or variety of combination, I, participating with what I supposed a commendable interest in the public welfare, on the probable approach of danger, felt it my duty to prepare for such an emergency; and having been favorably impressed with the prescriptions of a distinguished southern physician, then taking the rounds of the press, I put up, *secundum artem*, all his preparations which in his hands had been used, by no means in infinitesimal doses with entire success. In a short time a vagrant case from your city, of vigorous constitution, presented the opportunity of trying my skill, or rather

testing the skill of the preparations, for so far as skill on my part was concerned, it was placed out of the question—not relied on. The disease had passed its premonitory stages and had assumed its perfect type. The medicines were used *pro forma*—in half of the mammoth quantities recommended, and persevered in, regardless of indications, and with no other object than to follow authority, until it became most apparent that my patient was rapidly growing worse and running into the spasmodic and collapsing stages. Aroused from my apathy, by the impending peril of his condition, and reflecting upon the absurdity of the procedure of following the dictum of any one, I laid aside the medicines and adopted a course that satisfied my own conceptions was in conformity to the individual peculiarities of the case. The result was highly and altogether satisfactory; for I soon had the pleasure of congratulating myself and the patient in seeing him out of danger.

It is justly asserted in the first clause of the Fourth Article of the National Code, “that a regular medical education should furnish the only acknowledged right of an individual to the exercise and honors of the profession.” Nevertheless we are further informed that the “good of the patient is the sole object in view, and this is often dependent on personal confidence;” and that no practitioner having a license from a regular board of known and acknowledged respectability “should be fastidiously excluded from fellowship or his aid refused in consultation, when required by the patient.” So far, very well. But the rule further proceeds to say, that no one can be considered as a fit associate in consultation whose practice is based on an exclusive dogma, &c. In other words, all quacks are properly to be excluded from being called in consultation with the medical man having the qualifications recognized by the National Association. This, also, is very proper. But this code is silent as to what shall be the proper rule of action to be observed, when the recognized practitioner may be called to the aid of the excluded sect? I believe that the commonly received opinion is, that the call should be obeyed only upon condition that the latter be dismissed unconditionally. Upon this subject I beg leave respectfully to differ with such opinion.

As is stated properly enough, the primary and great, if not the only object, to be had in view in all consultations, is the good of the patient. The science of medicine has not yet arrived at that perfection as to command universal confidence, in the accuracy and stability of its principles, or reliance upon its infallibility. So far from this being the case, its teachers and exponents are not agreed as to what should be regarded as the well-ascertained and fixed principle governing the practice. It does not speak a language that is every where significant of a well-understood conventional consent. So strikingly true is this, that an eminent physician has said, "that those physicians have generally become the most eminent, who have soonest emancipated themselves from the tyranny of the schools of physic." The humiliating fact may be repeated by most of us, that "daily evidence convinces us of our ignorance of the seats of disease, and causes us to blush at our own prescriptions." "What mischief have we not done under the belief of false facts and false theories;" and by this means, it has been asserted that we have assisted in multiplying disease; we have done more, we have increased their mortality. Then it cannot be wondered, that with all our boasted superiority of learning and observation, the masses are somewhat incredulous as to the infallibility of our science or certainty of our prescriptions, and that they should consequently be more readily lured by the pompous announcements and fulsome assertions of the empiric, who constantly panders to their weakness and credulity by his "innocent vegetable" nostrums supported by the countless number and variety of the certificates of his patients. As in the State, all forms of religious opinion is rightfully tolerated, so in medicine, let prudence of thought be modestly and submissively submitted to, with no other restraints than the force of enlightened reason. Being called then to a patient, under the treatment of such a person, whose confidence has become shaken in his skill, or who has become alarmed at the prostration or aggravation of his case, shall we leave him to suffer the fearful penalty of his indiscretion and folly, and coldly regard that permanent admitted object of all consultations as totally obsolete and of no bending force? It

may be urged that it would be an admission on our part of their claim to an equality in professional standing, and thus we should tacitly endorse their title to public confidence, or compromise the dignity of our own pretension to respectability. Really, I cannot conceive that we would necessarily, or by implication endorse the one or impair the just public or professional estimate of the other, while we might accomplish incalculable good in rescuing a valuable life from danger, and at the same time disarm a dangerous foe of his weapons to do mischief. And would not the achievement of such an end be more to be prized than an irrational and vitiated public opinion, or the high-toned vanities and sentimentality of an imaginary professional etiquette. Let the claim we make to superiority be founded upon substantial medical acquirements and the advantages to be obtained from experience and application, and we shall find no difficulty in maintaining the position we may ourselves feel entitled to occupy.

As a means of discovering facts that may be turned to profit by the regular physician, such consultations may not be unimportant. On this subject a distinguished teacher of medicine, informs us "that improvement in medicine is not to be derived only from colleges and universities—systems of physic are the productions of men of genius and learning; but those facts which constitute real knowledge are to be met with in every walk of life. Many of our most useful remedies have been discovered by quacks." "Do not be afraid therefore," he says "of conversing with them, and of profiting by their ignorance and temerity in the practice of physic, and by conversing with them, we may convey instruction to them, and thereby lessen the mischief they might otherwise do to society." Not only this, but in pursuit of medical knowledge we are "advised also, to converse with nurses and old women. They will often suggest facts in the history of diseases, which has escaped the most sagacious observers of nature."

When the patient may find it to suit his purpose or his convenience to dismiss a quack he no longer has confidence in, it may all be proper enough; but that it should be the condition on which our action should be determined, is altogether wrong. On

the contrary, his presence there can do the intelligent physician no harm in any sense; and then the patient may be peculiarly situated. He may feel a delicacy and difficulty in extricating himself from a dilemma that greatly embarrasses him, without giving offence to one who, with all his destitution of the qualities requisite for the duty he had assumed, has been kind and attentive in fulfilling his engagements, and who has thus acquired the respect and grateful regard of the patient without inspiring him in return, with confidence in his own skill; perhaps a more sordid consideration may have its influence, in not deserving a dismissal, to give place to a new adviser—the apprehension of a retaliatory bill. Many motives might make it impracticable if not improper to request a suspension of his attention.

If, then, it be allowable, upon the smallest details of professional acquirements, to converse at all with such pretenders upon medical subjects, how much more, may it not be asked, would our degradation be augmented, by entering into a grave consultation with them at the bedside of the sick. For one, I cannot conceive of no professional dignity or self-respect, or public opinion, that could be impaired by the conjectured humiliation or that can control the paramount obligation of individual duty.

And again, my observation has convinced me of another fact in relation to this matter. Place the quack in such a condition, and unless you make some effort to place him at ease, he, like the spaniel at the piercing glance of his master, will exhibit a striking evidence of his insufficiency and subserviency, and hence will yield to your control the future management of the case. And for this advantage you are only to make a small sacrifice of respectful consideration to his feelings. Another not unimportant object may also be gained, and that is, you forever after secure his friendship, and his influence—or if not, you disarm him of his venomous sting, and thus open to your own superior claims to public confidence, a wider and more extended field of unobstructed professional enterprize and public favor. But should you lucklessly cross his path like the timid and insulted skunk, he will turn upon you with such nauseous effluvia as will fill the public atmosphere with the foulest odors of distrust and prejudice.

In conclusion on this subject, permit me to add, that as an obstetrician I have enjoyed the favorable opinions generally of the female practitioners of my section to a very considerable extent. This has been accomplished by uniformly treating them kindly and speaking of them respectfully, while it has invariably been my practice to afford them all the facilities for information they were capable of receiving, and never to build up my own reputation, by trumpeting their possible mal-practice. This course has resulted in giving to our physicians the control of all our best practice in this branch, and female accoucheurs have consequently become almost an obsolete appendage to any neighborhood.

The scheme of ignoring quackery by legal restrictions has at various periods agitated this country, and in the European States. In several of the states of both countries, laws have been passed for this purpose; but as yet no practical good has resulted. These laws are disregarded, and lie as a dead letter upon the statute books, and the offenders go unwhipt of justice; while the mischief accumulates. Neither does the advancement of an enlightened public sentiment, seem capable of successfully suppressing the evil. What then should be done in the premises, is a question often mooted? Let it alone with the corrections that the common law affords for the punishment of gross mal-practice as in other cases of misdemeanor. I remember some years since, and I had hoped to refer more directly to the paper, reading an article in a medical journal on this subject, drawn up with great force, by a committee of the ablest medical men of the country, raised by order of the British Parliament, in which they elaborately argued the question as to the utility of legal interposition. The conclusion to which they arrived was adverse to the proposed remedy, conceiving it best to leave the whole matter to the control of enlightened public sentiment—except so far as it might be met and counteracted by the increased scientific acquirements and practical skill of the medical men of the country; and further, they thought that the competition if afforded would operate as an incentive to the industrious and enterprising portion of the profession, and serve as a successful impediment to

the incompetent and lazy drones who were mere hangers-on in the faculty; And, again, it was further argued that the public had rights in relation to the matter worthy of respectful consideration—that every man had the inviolable right to be his own judge as to who should exercise the duties of physician, and that as it was a correct principle in morals, that the laborer was worthy of his hire, that therefore it would be palpable injustice to place it out of the power of the quack, though mischief might be the result of his temerity and ignorance, and to enforce his title to a just remuneration for his services.

In conclusion on this branch of the subject, it is necessary only further to remark that the profession should not arrogate too much in this regard, and grow angry at the stubborn and ignorant prejudice and credulity of the public for not yielding every thing to their superior opinions. Liberty of thought and freedom of action is a principle innate in the human mind, and will not suffer restraint for slight considerations, and their exercise is as necessary in medicine as in religion or morals. The skeptic or infidel would justly regard it as an unreasonable and unwarrantable exercise of oppression, to be compelled by the laws of the state, to adopt the opinions and conform to the actions of any dominant sect, although their claims might rest upon a basis of great superiority in intelligence, literature and didactic information and argument; notwithstanding the object to be attained, aspires to a consummation of infinitely more importance than the mere health and preservation of the physical man.

Then, finally, by way of brief inference, I will insist that if the medical profession shall ever fulfil its destiny by placing itself where its legitimate purposes should lead, an important duty devolves upon its individual members. They should not act the silly part of the bear in *Æsop's* fable, that cried to Jupiter for help, when he had the remedy at hand. Thus we have the remedy at command to correct or control many of the evils that envelop our pathway. We should exercise a proper self-possession, moral courage and concert of purpose and action in shaping our course. It has been justly said that "our work, as a profession, is in every way to endeavor to diminish physical suffer-

ing, according to the knowledge that has been given to us." Let every one then, find his work and do it, in such manner as will promote the general and specific objects of our profession, not incompatible with the public interests; and above all as will be acceptable to Him who holds us responsible for our stewardship here below, using reasonable industry to improve and increase our knowledge as the best available means to subserve the purposes of an individual and united usefulness. We should become less censorious and more liberal in our opinions, and more confidential and social in the intercourse we may exhibit to our professional rivals, imitating the benevolence of a Boerhave, the magnanimity and generosity of a Mead, and the industry and energy of a Sydenham, combined with the mild urbanity of the gentleman. Then as an organization for purposes of public benefit, let me suggest that we should in a laudable and public spirited manner endeavor to wield such an influence over public sentiment as will in the end, gently and unostentatiously and meritoriously bear down all factious opposing obstacles, to free inquiry, fair competition and a more liberal policy in tolerating anatomical and physiological investigation.

ART. XII.—*Medical Reports*. By J. P. EVANS, M.D., Cherokee Nation West.

Case of Obscure Malarial Disease.—Sept. 18th.—Mrs. Robins, aged about thirty years, wife of Rev. S. Robins, (a Methodist clergyman) had been in a weak, languid and somewhat emaciated condition for several years; also sterile, inergetic, and incapable of enduring much fatigue. For several weeks she has been prostrated.

Found her afflicted with a very troublesome, dry cough; flying pains in the shoulders and superior parts of the thorax, and some enlargement and tenderness of the spleen; a dragging sensation in the loins; sense of weight in the vagina, and a slight febrile movement; anorexia. The menstrual secretion, for several months past, has been sparing and somewhat irregular, and succeeded by a moderate leucorrhoeal discharge, of a week's dura-

tion. Pulse very small, and about ninety strokes to the minute; the tongue pale, as it is found in anæmic subjects—particularly in cases of protracted agues. Skin often moist—except during paroxysms of the slight febrile movement. On inquiry, learned that a certain periodicity existed. Examination *per vaginam* revealed a prolapsed condition of the uterus, characterized (as I have heretofore remarked in regard to a large majority of the cases I have examined) by a thickened, or tumified condition of the cervix. No abnormal condition could be detected by percussion or auscultation.

For several years immediately before removing to this elevated region, she had resided in a low, paludal district, near White river; and there it was that, without any active manifestations, a passive anæmic and relaxed condition was established.

Diagnosis.—Obscure malarial disease—a gradual diminution of the vital force, by the long, continued application of the endemic agent or influence, with slight determinations to such important organs as had been most obnoxious to determining agencies.

Rx. First.—S. quinine, 30 grs., made into sixteen pills—one to be taken every three hours, day and night, until all are consumed; this was intended to counteract the periodic feature.

Second.—S. morphine, $\frac{1}{8}$ gr., three times a day, for the purpose of allaying both local and general irritations.

Third.—Myrrh, 2 grs.; soc. aloes, $\frac{1}{4}$ gr; night and morning, in the shape of a pill; this was designed to impart some tone to the general system; increase the peristaltic motion of the bowels; augment the hepatic secretion, and stimulate the uterine system to a more vigorous and regular action. A pill of blue mass was also ordered to be taken once or twice a week.

Fourth.—A circular pessary was introduced.

Lastly.—S. quinine was directed to be taken, in case a periodicity should return, either in regard to febrile excitement, or any other condition.

Nov. 14th.—From the time of my first visit up to the present date, (a period of several weeks) there had been a gradual improvement. Dr. Noel, (since dead) who had been a student of mine, resided near by, and under his surveillance I had confided

the patient. From him I learned that no change had been made in the prescription; that a mild periodic fever had several times appeared, and was promptly and successfully met with *S. quinine*. The patient has gained strength and appetite, and is cheerful. Almost the only disagreeable symptoms present, except cough, (which is much milder than at first) is a sense of weight in the vagina, in assuming the erect position. The cervix uteri is less tumified, and more soft than previously; but the pessary is not sufficiently thick to keep the prolapsed parts properly elevated, when standing or walking.

Ry.	Syrup of squill	℥viii.	
	Simple syrup	℥xxiv.	
	Tinc. bals. tolu	℥iv.	
	Iod. potassium	℥ss.	
	Sulph. morph. . . .	grs.viii.	Mix. A

teaspoonful, (3j.) three times a day, as an expectorant.

A piece of sponge, the size of the pessary, was added to that implement; so that the os tincæ was retained almost *in situ*. There was evidently a relaxation of the abdominal muscles, and I therefore recommended the use of *Betts's abdominal supporter*. (Learned that one was shortly afterwards obtained, and seemed to add very much to the comfort of the patient.)

From the date of the second visit, the patient improved rapidly, and soon returned to her residence near the Indian line, and resumed her household duties.

The use of Cohosh in Rheumatism.—Sept. 21st.—W. W. Williams, aged about fifty years has been severely afflicted with chronic rheumatism; for six months or more complicated with diabetes—whether *insipidis* or *mellitis* I cannot accurately ascertain. He has never placed himself exclusively under my surveillance, but now and then calls for a prescription. Pulverized *cimicifuga racemosa* was supplied several times—five grains, three times a day.

The patient was flitting from one physician to another, and from physicians to the non-professional for relief, every few days; but as long as he took the cohosh there was a decided improvement; and I am inclined to view it as a good remedy in chronic rheumatism.

Case of Anomalous Remittent.—Sept. 22nd.—Augustus Davis, a daguerreotypist, (in town) sent for me late in the afternoon. Found him with a hot, dry skin, yet pale; vomiting and purging a bloody fluid every ten or fifteen minutes; pulse small and frequent. Stated that he had been ill three days; that the fever had remitted in violence every morning; that every afternoon vomiting and purging occurred, and the discharges had uniformly been of the sanguineo-serous character of the present.

R. Sulph. morph., $\frac{1}{4}$ gr., immediately; sulph. quinine, 20 grs.; myrrh, 40 grs.; mixed and divided into three portions; all to be taken during the night.

Sept. 23rd—Vomiting and purging was not repeated after taking the S. morphine.

This case illustrates the importance of the anti-periodic treatment in a striking manner. The sanguineo-serous discharges were alarmingly profuse; anodynes and astringents would have mitigated, or perhaps allayed the gastro-intestinal disturbance, temporarily; but at the next paroxysmal period it would have been renewed.

Case of Pneumonia.—Sept. 25th.—T. Post, aged about thirty-five years, was seized with a chill, followed by febrile excitement and pain in the left side of the thorax, and cough. He continued in this condition for a week; when, on the above date, I visited him—thirty miles. Found him with a hot, dry skin; pain in the left side; very troublesome cough, with a copious sanguineo-mucous expectoration; pulse small and frequent; tongue lightly covered with a pale yellowish fur, and edges somewhat red, but not intensely so. No intermission of fever had occurred, but distinct remissions had been observed every forenoon. He had taken a dose of the protochloride of mercury at the commencement; and, at the earnest importunity of a very *knowing* old gentleman, he had drank plentifully of *tar water*, daily; restlessness.

R.	S. quinine	.	.	.	30 grs.
	Tannic acid	.	.	.	20 grs.
	Opium	.	.	.	16 grs.
	Ipecac	.	.	.	8 grs.; divided into

sixteen powders. Directed one to be taken every three hours, day and night, until all should be consumed. Placed a large blistering plaster of. cantharides over the seat of pain.

Sept. 26th.—The patient rested well through the night, and perspired freely from a short time after taking the first dose of the above compound. The blistering plaster did well. No pain in the side; coughs but seldom, and expectorates freely.

Returned home, and seven or eight days afterwards, the patient—much to my surprise—visited me. He was entirely free from any symptoms of disease, except that of emaciation. Said he had no return of fever on the day on which I left him, or at any subsequent time.

Many cases of pneumonia will appear in these “notes;” and it will there be perceived that another mode of treatment became necessary.

ART. XIII.—*Notes from every-day Practice.* By RICHARD O. CURREY, M.D.,
Knoxville Tenn.

1. *Case of Enuresis successfully treated with Fluid Extract of Pareira Brava.*—Sometime during the past summer a young man, aged 24, carpenter by trade, made complaint to me that ever since his boyhood he had been troubled with the bad habit of emptying his bladder while asleep in bed. That at times it would leave him, but only to return, after a short respite, with redoubled force. That he had tried, morally and physically, to overcome it, but all his efforts had been vain.

At the time of his call his general health was not good, and consequently my first treatment was directed to its restoration. There was no appearance in the urine that indicated any organic affection of the bladder; on the contrary, in every respect it appeared healthy, and during the day was not in any ways troublesome. Various remedies were ineffectually employed.

Having seen the following combination recommended, it was also used as far as prudence could justify.

R. Ex. Belladonna.

Ex. Hyosciamus aa . . . grs.xvi.

White sugar . . . 3i.

Camphor Water . . . ʒiss. ; of which a

teaspoonful was ordered just before going to bed each night. But no good resulted.

Repeating his visit at an hour when I was specially employed, I handed him a vial of the *Fluid Extract of Pareira Brava*, which was standing upon my prescription case for another patient, and directed him to take a teaspoonful three times a day, and requested him to call at the end of a week if it did him no good; but if so, to continue it till he had used all of it. Some four months afterwards he called to pay his bill, stating that the last medicine had acted like a charm—to use his own words—that his affection had been relieved after taking a few doses, and had not since returned; that he also felt better, both in mind and body than he had for years. In this case, which I regard as one of atony of the bladder, the *pariera brava* answered a good end in restoring tone to the organs, and relieving the patient.

2. *Epidemic Dysentery as it prevailed in Knox county, two miles South of Knoxville, in the months of July and August, 1856.*—With the exception of a few isolated localities, throughout East Tennessee the year 1856 was remarkably free of epidemics. In the city of Knoxville, scarcely any sickness prevailed—in fact, that which the profession was called upon to treat being of an old established character—such as chills and fever and bilious remittent fever. I have not, for ten years, known such a tendency in every variety of disease to assume the intermittent grade, and to be so readily amenable to the anti-periodic treatment.

There was, however, one locality, two miles South of Knoxville, where an epidemic of dysentery prevailed for eight weeks to a fearful extent. There was not a family in that neighborhood of two miles in extent which did not count some one or more cases of the prevailing disease, while in some of them the whole family was prostrated in succession.

Topography of the District.—The surface of country is very

broken; consisting of high elevated ridges, and narrow valleys, which are so slightly inclined that the spring branches through them are very sluggish. There is, consequently, to be found along these branches, the detritus accumulated from the contiguous ridges, which, during the summer, is exposed to the sun, and undergoes decomposition. This was the only local cause of disease that I could discover throughout the entire infected district. The residences of the citizens, though mostly constructed of logs, were neatly kept and well ventilated, so that there was no cause for the disease on this score.

The weather was dry—there having been no rain of any consequence for some time previously. There had been such a deficiency of rain that farmers were apprehensive of an entire failure of the corn crop. Temperature of the day rose as high as 90° and 95°, while at night it fell to about 65° and 70°.

Symptoms.—Nearly every case was affected alike. First, an ordinary looseness of the bowels, in which might be seen a slight discoloration of blood. To this succeeded rapidly muco-sanguinolent discharges, and in some cases, discharges of pure blood. Pains were experienced in left iliac region, and a most intolerable bearing down, and desire to go to stool. There was an almost entire suspension of the perspiration—skin in some cases being constantly feverish; in others, alternately cool and hot, or assuming an intermittent form. Tongue at first having a whitish coat; afterwards changing to a brown—and either cleaning off under convalescence, or becoming glazed and red at tip and edges as the disease increased in severity. Secretion of urine, in many cases, was so scanty as not to require an evacuation of the bladder more than once in the twenty-four hours; while in other cases such an entire retention ensued as to call for the use of the catheter; and this, too, independent of the employment of any remedial agent that would have had such a tendency. Pulse quick but not full—indicating the disease to be of a typhoid character. In one case, I noticed spots on the skin, on the twelfth day of the sickness.

The course of the epidemic varied in different cases—ranging from seven to twenty-one days; the two cases in my practice

which proved fatal, being on the eighteenth and nineteenth days of illness. Other cases continued longer than these in bed, and finally recovered.

A favorable termination of the disease was indicated by a lessening of the pulse, moisture of skin, secretion of urine becoming more natural, and fœces of a bilious character—though in one case, which terminated fatally, after the dysenteric operations were checked, a bilious diarrhœa set in, under which the patient succumbed. On the contrary, in the fatal cases in my practice, the prognosis of the disease presented an aggravation in the place of a mitigation of the symptoms. In one, the bowels became excessively tympanitic; for several days there was bleeding from the nose—at which the patient was constantly picking; thirst great, and stools presenting the appearance of the washings of flesh.

Treatment.—This varied according to the age of the patient, and the severity of the attack.

It generally consisted in the administration first of a mercurial of blue powder, followed by castor oil and laudanum combined—after which, in some cases opium and ipecac was given in broken doses, with or without the blue powder. In my own cases this was the only mercurial used. During the interval between the ipecac and opium, I administered camphor water, morphia and glauher salts, according to the following formula :

R̄.	Camphor water	.	.	3vj.
	Sulph. morphia	.	.	gr.j.
	Sulph. soda	.	.	3j. Mix. Table-

spoonful every two hours.

In some cases, the opium and ipecac were combined with cream of tartar, near about in the same proportion to obtain Dover's Powder—and I believe it exerted a happy influence.

In two inveterate cases, which did not yield to any treatment, but in which the bloody operations continued with an aggravation of all the other symptoms, I used an injection of nitrate of silver according to the following :

R̄.	Nitrate silver	.	.	grs.xx.
	Solution starch	.	.	3j. Inject once. In

these two cases only two injections were necessary to arrest all dysenteric discharges, and bring about a speedy recovery of the patients after the tenth day of illness.

In my treatment I frequently resorted to injections of starch, with, or without laudanum; in some cases advantageously, in others not. Another form of injection used with advantage was composed of the albumen of one egg into which was mixed a portion of laudanum, or a solution of morphia. In five of the cases I had to resort to a blister—two of whom were the fatal cases; in all of these, the use of the blue powder eventually brought about bilious discharges—except in one of the fatal ones—while in the other, the nature of the disease was changed to bilious diarrhoea.

Mucilaginous drinks of sweet gum bark, slippery elm, and gum arabic exclusively; and the diet in all cases was restricted in early stages to farinaceous articles—and as the disease progressed and manifested a tendency to yield animal broths, as beef tea, suet tea, etc.

To sum up the treatment therefore, I do not see that any particular kind had the preference over another. Mercurials, as blue powder and blue mass, opiates conjoined with ipecac—or with camphor water and sulph. soda—lunar caustic injections—each seemed in the several cases on which they were used, to result in good, but my decided preference is for the opiate treatment either with ipecac or with the saline, or conjointly.

Pneumonia treated with Tincture of Veratrum Viride.—Case 1.—The first case on whom I used the tincture of veratrum viride, was that of Mr. B., of this city. The age of the patient was about sixty years, and he was apparently a strong, athletic man. He had, sometime before, suffered from an attack of the same disease—pneumonia. The nature of his occupation in one of our iron foundries, required him to pass from a room heated to a very high temperature into the extreme cold weather of January, in going to and returning from his residence.

His attack was very sudden as well as severe. He was bled, cupped and blistered—and had successively administered to him mercurials, tartarized antimony, citrate of potassa, Dover's pow-

der, without seemingly affecting the progress of the disease. His pulse continued very frequent and full; his cough troublesome, and expectoration of bloody mucus. A consultation was held and the case pronounced hopeless. Determined to give him another chance of recovery, I resorted to small and repeated doses of veratrum. This I administered in a little syrup, by beginning with two drops, and increasing the dose one drop every two hours, till nausea should manifest itself, or his pulse lowered. Staying by his bed, I administered the doses myself; and when he had taken the fourth dose of five drops, his pulse began to fall. On beginning the use of the tincture, it beat 140 to the minute—it had now fallen to 80. At the proper time another dose was administered, of six drops; after this the medicine was suspended, for his pulse had subsided to 40 per minute, and very feeble; and a most distressing nausea and vomiting resulted. Portions of brandy and water were occasionally administered during the ensuing twelve hours till his pulse began to react; after which he steadily improved—only requiring the use of the syrup of squills as an expectorant. After the reaction of his pulse it rose to 80, and continued at that until his recovery. The use of the remedy should have stopped at the fourth dose, and the effects would not have been so severe.

Case 2.—A negro boy in this county being affected with pneumonia for five days, his mistress attempted to afford him relief by the use of calomel, ipecac, castor oil and turpentine. Called in on the fifth day of illness; I found him with a *very small* and frequent pulse—150 to the minute; severe pain in right side—increased on coughing; expectoration rusty colored and slightly bloody; bowels inactive; skin dry and husky—every symptom indicating a case of *typhoid pneumonia*. A blister was applied to his side, and the following prescription prepared:

Rx. Syrup of squills . . . 3j.
Tinct. veratrum viride . . 3j. Mix.

Give two drops, and repeat every three hours, increasing each dose one drop—suspending the medicine as soon as nausea is manifested; to relieve which, give six drops of laudanum in equal portions of brandy and water, and begin again with the syrup.

Second day: pulse full—120 to the minute; continue same treatment.

Third day: cough very troublesome; pulse small, and general condition same.

R_y. Syrup of squills 3ss.

Tinct. veratrum viride . . . 3j. Mix. Be-

gin by giving ten drops, and increase five drops every three hours; using same precautions in case his pulse should flag, or nausea and vomiting result; but instead of suspending entirely, diminish each subsequent dose five drops.

Fourth day: pulse 66; no cough; no pain in side; bowels torpid, for which,

R_y. Calomel 5grs.

Co. ex. colocyrth . . . 10grs. Mix. To

be followed by castor oil in six hours, if no operation. Diminish the dose of syrup of squills and veratrum, occasionally administering a portion of brandy and water.

Fifth day: patient free of all pneumonic symptoms; pulse 72; skin not so husky; no fever. The weather being extremely cold and disagreeable for country visits, I directed the nurse to attend to the condition of his bowels—give the syrup in smaller doses at prolonged intervals, and let me know his condition if there should be any change for the worse.

Two days afterwards he was reported as improving slowly—though he had a slight cough. Pulse being at 72.

R_y. Syrup squills

Ipecac aa 3j. Take 35

drops every two or three hours to relieve cough. Patient dismissed.

Case 3.—Mr. W., a man of intemperate habits, attacked severely with pleuro-pneumonia; age 28; pulse 130, full; high fever; cough troublesome, and scanty expectoration; headache; gave him a purgative of calomel and comp. ex. colocynth which he soon threw up.

R_y. Syrup squills.

Tincture veratrum viride, aa . 3j.; begin in half an hour with two drops, and repeat every three hours increasing each dose two drops. Fourth dose vomited him.

Second day: condition the same; continue the use of same prescription, in addition to which an hour after each dose give the following:

R_x. Citrate of potassa . . . 3jss.

Tart. antimony . . . gr.j. Mix. Take a tablespoonful an hour after each dose of the syrup till nausea or vomiting ensues.

Third day: no effect on pulse, which still continues at 130; pain in side, and cough very severe.

R_x. Syrup squills . . . 3ss.

Tinct. veratrum viride . . 3j. Mix. Take twenty drops and repeat every three hours, increasing each dose five drops. After taking three doses, it had the effect to lower his pulse to eighty pulsations in the minute. The same treatment was continued for a few days longer, with the most beneficial results—and the patient discharged.

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. XIV.—*Human Physiology, Statical and Dynamical; or the Conditions and Course of the Life of Man.* By JOHN WILLIAM DRAPER, M.D., LL.D.; Professor of Chemistry and Physiology, University of New York. New York: Harper & Brothers, 1856.

We have had before us many valuable works on physiology, all, or nearly all of which are by authors of celebrity; but the work now before us for examination differs in one respect from all others of which we have any knowledge—its author is one of the most scientific and thoroughly practical chemists in the United States. Hence, in all these investigations into the nature and structure of animal tissues and animal secretions, he is not dependent upon the researches of others—having seen and known for himself. We regard, therefore, the present work as affording a strong impetus to the progress of physiological inquiry. In this respect our author is good authority, and will doubtless be used as such. He acknowledges himself, modestly, as being largely indebted to the standard works of Carpenter, Todd & Bowman and Kirkes & Paget; and at the same time assures his readers that the book is the result of his course of instruction for years in his department in the medical school.

Our author makes two divisions of his work—statical physiology, or that which relates to the conditions of the human system, and the means by which it is sustained, and dynamical physiology, or the course of life.

In the first he considers all the processes of digestion, nutrition, circulation, absorption, respiration, secretion and excretion, and the functions of the nervous system; as also those of the five senses.

In dynamical physiology, or the course of life he considers the principle of organization—the organic cell; the functions of reproduction and development; besides other subjects pertaining to his social, physical and intellectual qualities.

He discusses each of his subjects in a free-and-easy manner—in a happy style, and well-arranged sentences. He seems at no loss for illustrations; and, altogether, has presented the medical community a work which knows no superior in this department of the medical sciences.

Another feature is its high moral character; and we use the word moral in that religious sense, which distinguishes it from that speculative philosophy which has of late years crept into the minds of some who have undertaken to enlighten the mind of man on this subject. He regards the human race as a unity, and that the right progress of society depends upon its religious opinions. The view, therefore, which he takes of physiology is embraced in the following paragraph from the preface:

“The existence of God, his goodness, power and other attributes; the existence of the soul of man, his immortality and accountability; the future life; our relations to our positions in the world; its government; these are topics with which physical science is concerning itself, and from which physiology cannot hereafter be disconnected.”

Speaking of the nervous mechanism, our author regards it as affording an evidence of the immortality of the soul.

He says, page 416: “Savage or civilized, we carry about within us a mechanism intended to present us with mementoes of the most solemn facts with which we can be conceived, and the voice of history tells us that it has been ever true to its design. It wants only moments of repose or of sickness, when the influence of external things is diminished, to come into full play, and these are precisely the moments when we are best prepared for the truths it is going to suggest. Such a mechanism is no respect of persons. It neither permits the haughtiest to be free from the monitions, nor leaves the humblest without the consolation of knowledge of another life. Liable to no mischances, open to no opportunities of being tampered with by the designing or interested, requiring no extraneous human agency for its effect, but always present with each man, wherever he may go, it marvellously extracts from vestiges of the impressions of the past, overwhelming proofs of the reality of the future, and gathering its power from what would seem to be a most unlikely source, it invariably leads us, no matter who or where we may be, to a profound belief in the immortal and imperishable, from phantoms which have scarcely made their appearance before they are ready to vanish away.”

R. O. C.

ART. XV.—*The Obstetric Memoirs and Contributions of JAMES Y. SIMPSON, M.D., F.R.S.E.; Professor of Midwifery, University of Edinburgh.* Edited by W. O. Priestley, M.D., Edinburgh, and Horatio R. Storer, M.D., Boston. Vol. ii. Philadelphia: J. B. Lippincott & Co., 1856. (Through W. T. Berry & Co., of Nashville.)

About one year ago we noticed in our pages the reception of the *first* volume of this valuable work; we are now under obligations to the publishers for another rich treat in the *second* volume.

Analysis of the volume.—Like its predecessor, we find it contains a variety of essays and controversies on—

The pathology of the puerperal state.

The physiology and pathology of the products of conception.

The pathology of infancy; and anæsthetics in midwifery, surgery, etc.

These papers have generally been published in the *Edinburgh Monthly Journal of Medical Science*. These volumes are, therefore, collections of these papers, but are not the less valuable on this account.

The Pathology of the Puerperal state.—Two views have been entertained as to the pathology of the puerperal state: first, that it is an idiopathic fever *sui generis*; and second, that it is a disease originating in, and identical with peritonitis or any other local inflammation. These views are now rejected by the best pathologists and have inclined them “more and more to adopt the doctrine, that the real source and cause of puerperal fever is to be found in a toxæmia or morbid state of the circulating fluid.” This has been proved by injecting pus into the blood of the lower animals, the result, in the symptoms during life, and in the lesions of the dead body, showing a very strong analogy to those of puerperal fever. Phlebitis also presents symptoms similar to the puerperal disease. This matter or pus can be readily taken into the system through the placental blood vessels as well as through the inflamed or abraded surface of the vagina. In these pages, Dr. Simpson clearly sets forth the analogy between puerperal

fever and surgical fever. This analogy he draws from the anatomical conditions of those subject to them; from the pathological nature of the two fevers; from the internal pathological lesions left by them, and from the symptoms. He regards the two as being communicable from one subject to another, the puerperal through means of the accoucheur, and the surgical fever by means of the surgeon's appliances. We alluded in our obituary notice of Prof. R. M. Porter, in our last, that he came to his death by the imbibition of a blood—poison while dissecting a very putrid subject during the month of May. All of his symptoms were strikingly similar to those of a puerperal case.

Our author also fully treats of anæsthesia in midwifery. He employed it in nearly every case that came under his charge, and in no one had it been productive of bad effects either to mother or child. He discusses the subject in all its bearings, very ably, and we commend its perusal to our readers.

We find in the *American Medical Monthly*, for January, an interesting sketch of Dr. Simpson, written by Dr. Walter Channing of Boston. It will not be out of place to insert it in connection with the foregoing note of his memoirs:

At half-past one his consultations at home begin, and last till nearly or quite six. This is his least busy season, but as many as between forty and fifty have been counted; on one day more. His patients are arranged in two classes—those who pay, and those who do not. This prevents much embarrassment, which would necessarily arise in learning the condition of each patient, and hence much time would be lost, and it is very important to prevent this. When he began this system of home *clinics*, for such they strictly are, his house was filled at all hours, so that it was impossible to keep any order. People would come at seven, A.M., in order to be first. They would get breakfast at six, or earlier, and disturb their own families much. To prevent this, he fixed the hour at half-past one to half-past five. The patients of the two divisions are in different, but equally large rooms. They draw lots for priority, have tickets, and come in as called, and so the most perfect order prevails.

Everybody knows what are Prof. Simpson's hours, and everybody observes them. He has an assistant, who writes prescriptions to his dictation, directions, letters, &c., and also attends to cases. He examines cases daily when there is occasion to do so. From long experience, and constant observation—the habit of recording cases—and of distinguishing them with all the accuracy in his power, he is able to arrive at conclusions in the cases before him in a very short time or to

make his diagnosis. I see most, or many of his cases—examine them after him, and I have again and again been struck, in new ones, how true is his diagnosis. He proceeds at once to the treatment. If an operation is to be performed, he does it at once. Applications of remedies are made and prescriptions given, with directions, and the patient is desired to call in a week, fortnight, in two days, &c., as circumstances may indicate. At times the case is written down from the answers of patients to questions. This is always the case if it be a new case, or it is probable that changes may be required in treatment, or the effects of treatment noted. Some notion may be got of this portion of Prof. Simpson's in-door, or home professional life. He goes through this great labor quietly, and methodically, and with as gentle, kind, cheerful spirit as man ever manifested. The moral character of the daily service in disease, is quite as striking as is the professional. The moral presides over the whole, and renders it one of the most interesting matters for observation that can occur. I have been utterly surprised at its executive patience, its activity. Here are the poor and the rich together with no other distinctions than such as will best accommodate both. And I can say, from a long and wise observation, that there is no difference in their treatment. The great fact of each in Prof. Simpson's regard is the fact that disease exists which it is the physician's business to investigate and try to remove. He knows what is the prospect of success or of failure, and makes his prognosis accordingly. But even when the worst is announced, it is not spoken of as utterly hopeless, and something is done, all is done, for present comfort, when nothing may be done for cure. I am surprised again at the variety of disease which congregate at No. 52, and of the number which is presented in each kind. It is this which gives character to the whole, and makes these *clinics* the very best schools. I have every day learned much; yea, a great deal, which will aid me in my future professional, yes, moral life. I had designed to visit Ireland; but so few days remained to me that I was sure that the visit could amount to nothing important, and I concluded to remain at Prof. Simpson's house, in the midst of his home practice, and to visit with him abroad such patients as he could show me.

Wherever we went, the Professor was received with the same bright welcome, the same cheerful face; and I thought this made the beauty of his professional life. One was glad to see him so soon again. Another had been waiting, with such patience as could be commanded, for a visit. But with all was the appearance, and the consciousness, that something good was to come from the call. He had time for everything. Took his seat, and with his "come along now," "how are you?" "how have you been?" &c., and which was always answered to satisfy perfectly the various objects in view. There was directness in his questions, or directions to the patient, but it was so quiet, so easy, that, though time was pressing on new engagements it seemed that the present one only occupied his mind. There was persuasion with command, or demand, in such proportions, that the patient was

only anxious to do the very best for himself, or for herself, and for the Doctor. In this way, or by this manner, which seems no manner at all, Prof. S. is able to do a great deal in a short time. His coachman understands, by a hint, where he is to go, and goes rapidly through his various service. As we pass along, some object of interest is at hand—the Botanic Garden, a ruin, a hill, a beautiful prospect. He pulls the string, opens the door which lets down the step, and “come away,” tells you there is something for you to see—something to please you—and there is time enough to see it. “I visit here, and for ten minutes I will leave you—go down there, and you will find something.” Off he goes to his patient, and off I go to see what he has indicated. The Professor is well made for dispatch. He is short, stout, with small feet, and his step is short and very quick. He is of excellent age for vigor—about thirty-nine—and “goes ahead” of all walkers. I have almost to run somewhat, not to lose him. Let me finish his picture. You have his length, but not his *full* length. His head is large, covered with a profusion of black hair, which obeys its instincts, and more strikingly so when he thrusts his very small hand into and all over it. His forehead is of good height, but the hair grows low upon it; and to me this is the most becoming manner of its growth, and the antique, the Apollo, the Clyte, &c., support my taste. His face is broad, of fair length, and its expression just such as mind and heart always produce. His eyes are singularly loquacious, and always begin to talk before he utters a word. His knowledge is more various than I have before met with. Nothing escapes him. Science and literature are his pleasures. Archæology is a favorite pursuit; and his friends frequently send him books, and specimens, which help his studies. I never saw so many presents. I went up last night late. “I must make some visits,” said he, “say at eleven.” Off drove his coach. This morning, before anybody else was up, I went below for my spectacles. On the sideboard was a basket of fine peaches, “which was not so before.” In the morning, bouquets came in. I could fill pages with a list of such offerings as are daily poured in. He has game at every meal. “Our friends,” said one, “keep us supplied with game.” His family pass the Summer in a very pleasant place a few miles from the city, but his house affairs go on by themselves very much as of themselves, and knew how, and are all in perfect order. Said he to me, when he carried me bodily from my hotel, “I am a bachelor—no woman—but ‘come away,’ you shall have the best I have.” Night before last, he was called into the country. I found him at table in the morning, and with a heavy but hearty yawn, said he, “I had a drive last night, over a stoney road, in a carriage without springs. I changed it, but was no better off, and I feel well pounded.” This was not a complaint, but an experience; and, as soon as breakfast was over, eaten as it was with all sorts of interruptions, he was ready for his visit to the Duchess of —, and everybody else. He eats little and as if almost unconscious of the function. In this he constantly reminds me of ——. He receives a great deal of

money, I have heard. But he seems wholly regardless of money, and, as I have further heard, it is only lately that he has begun to accumulate property. He is paid at the visit, or consultation, which saves him from one of the most inconvenient offices, charging and collecting fees. We feel both the inconvenience and loss, in America. I have seen fees paid him. It is when the patient is leaving him, and, by offering the hand for farewell, the fee is deposited in his. I really think, if he were subjected to our system, he would get no money at all. "At night," said a patient of his, whom he sent to me when she came to America; "his pockets are emptied. He knows nothing of their contents before; and so his money is cared for." I said his meals are often interrupted. His butler brings in cards, notes, letters. "There," says he, and lays by note after note. Then two or three ladies come in. If he is not in, down they sit on the sofa, and take up books or newspapers. Then gentlemen, with or without ladies appear. They are always asked to table by Miss —, his sister-in-law, or somebody else. When the Professor is at table, he places them. But he is reading, and eating—or giving bread to a spotted Danish coach-dog, named Billy, of fine size, and a universal pet. I feed him always. Professor S. talks to the new comers. Then learns of strangers what they want, gets their residence, if visits are wanted, or goes into a room hard by, and sees them alone. His house is very large, and full of rooms, and always seems inhabited. At length, he gets ready to go out. "Come away," he says to me. I run up to put on a different coat, to get my hat, &c., and always find him, hat on, at the door, ready to run down the steps for the morning's work. This is the way every day. He wears a narrow-brimmed hat, and puts it on well back, and so shows his whole face, and part of his head. His dress is always black, with a remarkably nicely-arranged white neckcloth, with a very carefully made bow in front. So you see he is always *dressed*. I think, M., you would want to give the hat a different *set*. You could not improve the rest of the toilet.

Now, is it not a great privilege to be the inmate of such an establishment as this? Is it not a thing to prize, to be the companion of a man so wholly devoted to others, and yet who is so cheerful, so constantly happy himself? You are admitted by such a man into the society of his thought and of his act. He always talks to the purpose, and yet he is the least of a formalist of any man with whom I have been acquainted. He has large information, for he is habitually an observer and a student; and yet he has no pedantry, no obtrusion of learning for its, or rather his own sake, but that his companions may be helped by what he knows. He is almost daily making new observations, discovering something new, or using the known in a new way. And yet he is not in the remotest degree a dogmatist. It is not to support a doctrine that he talks, but to afford you an opportunity to speak more fully of it, to get knowledge from it, or to aid you by the knowledge he communicates. I have been chiefly a questioner in the society of Prof. S., and I always have got good answers. If he has

no answer—if he cannot explain the unexplained in my own mind, he turns himself round in his coach, for it is in driving I have the best of his society, and says, “I don’t know, I cannot explain that.” He will add, “I have had the same difficulty you have, and cannot clear it up.” One advantage has arisen out of this intercourse with Prof. S., which declares itself to me every day. I am conscious of a daily review of my own professional life, of thought, of reading, and of study. I speak constantly of books, of cases, of results, of treatment. Prof. S. has read all, and infinitely more than I have, and yet how small is his study! “Here is my study,” said he, the other night, as I was passing his sleeping-room, on my way to bed; “come along.” In I went. The room was small. There was his bed; and in place of a night-stand, there was at the head of his bed a book-stand, or case, with two or three shelves, about a foot and a half wide, filled with books. The filling took but few. Taking hold of a movable gas-burner, he brought it forward, so that he could easily read on his pillow. “Here,” said he, “is my study. Here I read at night.” I only said, “What a privilege it is to be able to read in this way. I never could,” and then, “good-night.” I heard his night-bell almost every night. When I recollect how much work this man does, how his days are filled and crowded with all sorts of professional duty and service, I am surprised that he should make his study of his bed; and yet this simple incident had in it an explanation of the wide knowledge which is acquired under difficulties. I saw in it how intense was his interest in all which was before him, and did no longer wonder at his success; and more, I no longer wondered at his unconsciousness of his own acquisitions, so that when he gives them to you, you almost think that he is speaking for another, rather than for, or out of himself. Among his other labors he edits a medical journal, and is himself a constant contributor. This review of one’s professional life, in the intercourse of such a man, I confess is singularly attractive. You ask if he has read such a book. He says he has. You now speak of something which strongly impressed you at first, and may be, only reading of it, describe a case or dwell on a doctrine, and ask if he remembers this or these, and if his experience supports the doctrine. I suppose that in many cases our distinctness of memory regarding some point or points in a book, may be because what impressed itself so strongly was the only novelty or important fact in the book. How rare is it, even in books of much size, to find a page or a sentence which will “stick,” as somebody says, or hold its place in the mind. The reading of mere repetitions of what others have said, and which we already know, makes no addition to knowledge. It is nothing more than putting upon another, so to speak, its exact fellow—piling up the same thing—a most useless species of overlapping. But the book of which we have so little recollection may have a great deal for another mind. When that mind is addressed on that book, much will often be brought before us which had scarcely been noticed, or only to trace its resemblance to that already acquired. It is now presented under new aspects, and may be

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to us new or original knowledge. In these works of very early study the gray fathers of medicine are again with us; and in talking of and with them the former days return, and age feels again the warmth and vigor of manhood. I do not know when I have had more of that enjoyment which comes of study and its gifts than when, with this living Professor, I was looking back for nearly half a century of my own intellectual effort, and in this way consulting again the earliest sources of knowledge.

ART. XVI.—*A Treatise on the Practice of Surgery.* By HENRY H. SMITH, M.D., Professor of Surgery, University of Pennsylvania. Two hundred and seventy-four engravings on wood. Philadelphia: J. B. Lippincott & Co., 1856.

Prof. Smith, now of the University of Pennsylvania, is already known as an author; and elevated to the prominent position of Professor of Surgery in a medical institution which has for so many years held the supremacy, it may be readily inferred that he is a surgeon of no ordinary skill. His *Operative Surgery*, which we had an opportunity of glancing at on the shelves of our accommodating booksellers, W. T. Berry & Co., of Nashville, but which the poverty of our purse forbade us from possessing, struck us as being the best illustrated, most comprehensive, and withal, the best work on surgery we had ever examined. The volume now before us is a more modest volume, being offered as a text-book to aid the student in his attendance upon his lectures. While he styles it the Practice of Surgery, he also occasionally introduces such principles of the science as may be necessary to elucidate or confirm his diagnosis and treatment of surgical diseases. The directions for the performing of the various operations are very clearly laid down. We regard the book as a valuable accession to our literature of surgery.

ART. XVII.—*The Causes and Curative Treatment of Sterility; with a Preliminary Statement of the Physiology of Generation.* With colored lithography. By A. K. GARDNER, A.M., M.D., &c. New York: De Witt & Davenport, 1856.

From the publishers we have received the foregoing work. The subject of which Dr. Gardner treats is one in which many married

persons are concerned. Sterility, without doubt, is the cause of much dissension; and any mode of treatment that can be adopted to remedy it will find favor. Physicians are often consulted on this very subject; and it must be admitted that, in many instances, they fail to secure the desired end, because they have not availed themselves of the proper information to enable them to treat their patients in a true and scientific manner. In their failure, they attribute it to some obstacle which cannot be overcome, and the parties settle down in the assured belief that their case is a hopeless one.

The first duty of the physician, it seems, should be to ascertain whether the generative apparatus of the unblessed couple are each perfect; in case of defect with either, the treatment, if at all admissible, would be very different from that to be pursued where all is perfect. Dr. Gardner's work has no reference to the impotency of the male, but simply to the sterility of the female.

The book is well gotten up, and *beautifully* illustrated. As to the *propriety* of two of the illustrations, we may be permitted to express our doubts.

ART. XVIII.—*The Principles of Surgery*. By JAMES MILLER, F.R.S.E., &c., &c. Fourth American Edition. Two hundred and forty engravings. Philadelphia: Blanchard & Lea, 1856.

Our readers are too well acquainted with Miller to need any commendation from us. His two volumes—the Practice, and the Principles of Surgery—constitute complete text-books, or treatises on every subject pertaining to surgery. (Through W. T. Berry & Co., Nashville.)

ART. XIX.—*A Handbook of Medical Chemistry*. By JOHN E. BOWMAN, F.C.S. Second American Edition. Philadelphia: Blanchard & Lea, 1856.

2. *An Introduction to Practical Chemistry, including Analysis*. By JOHN E. BOWMAN, F.C.S. Philadelphia: Blanchard & Lea, 1856.

We are indebted to the kindness of W. T. Berry & Co., of

Nashville, for placing on our table the foregoing handy volumes. For books of reference, or for guides in the laboratory, they are equally useful. After a careful examination of their contents, we are pleased with the style of the author, the subjects treated of, and their arrangement. Students and chemists will find them useful.

PART III.
MONTHLY MEDICAL RECORD.

CHEMISTRY AND TOXICOLOGY.

1. *Chemico-legal Analysis of Blood.*—In the trial of a man charged with the murder of a female, the author had to prove the identity with blood of red stains found on his garments, and on an axe and its handle. The stains were scraped off with a knife, or where that was impossible, were dissolved out by water, and the solution evaporated at a very low temperature.

1. The substance was heated in a glass tube; it became black, and gave off thick white vapors, smelling like burning feathers, and browning curcuma paper, which color disappeared on lying in the air.

2. It was gradually heated to redness with a little sodium, the residue dissolved in water, filtered, mixed with a few drops of a solution of proto-oxide and peroxide of iron, and over-saturated with muriatic acid; which caused a precipitate of Prussian blue.

3. A watery solution was heated to boiling; it separated a brownish grey coagulum, which disappeared on the addition of caustic potassa; the liquid now had a greenish color.

4. A solution was mixed with chlorine water; it was decolorized, and white floccules were separated.

5. On the addition of nitric acid, a greyish, finely flocculent precipitate took place.

6. Tannic acid produced a greyish precipitate with a tinge of violet.

The axe and its handle had evidently been washed; a few spots on the handle could not be dissolved in water, but caustic potassa took them up; at the same time, however, the liquid became of so dark a color that it was unfit for testing it. What little remained on the iron was carefully scraped off; an admixture with iron rust could not be avoided, which remained behind on heating with caustic potassa; chlorine decolorized the alkaline

liquor and precipitated white floccules. The scrapings were, however, *insoluble* in pure water, thus proving Rose's experience of the insolubility of the red coloring matter of blood in water, in the presence of the oxide of iron, to be correct.

The author also corroborates Rose's statement, that earthy matters render the red coloring matter insoluble in water; but on the green liquor, No. 3, he could not observe the dichroism of which H. Rose speaks; also in an alkaline solution of fresh coagulated ox-blood, he could see but a faint red color in reflected light although he experimented with concentrated and diluted solutions.—*Wittstein's Viert. J. Schr.* v. 382–389. *American Journal of Pharmacg.*

2. *Collodion*.—By L. HOFFMAN.—The author has occupied himself with the preparation of collodion for photographic purposes, and recommends the following process, which may also be rendered applicable in surgery by additions. The best addition is castor oil, to deprive the collodion of the property of contracting so strongly and becoming cracked.

One part of loose, clean cotton-wool is immersed for a quarter of an hour in a mixture of twenty parts of dry nitrate of potash, and thirty parts of English sulphuric acid, in a suitable glass vessel, capable of being closely covered with a glass plate. During this time it is once strongly stirred. The mixture is then poured into a pail of pure water, and well washed, and this operation must be repeated until the last traces of salt and acids are removed. The xyloidine obtained is then put into a linen cloth, pressed sharply, and teased out before drying, so as to remove all knots. The drying is effected upon a common stove in a suitable seive.

Schacht has already recommended the same proportions, but has not prescribed the employment of the dried salt, and he has also confined the time of action to 4–5 minutes. Xyloidine thus prepared did not dissolve so readily and completely in the mixture of ether and alcohol, and the preparation in course of time lost the property of dissolving easily. Six parts of xyloidine, obtained by the above process, were dissolved by shaking in a mixture of one hundred and twenty parts of ether, and eight parts of the most highly rectified alcohol, and three parts of castor oil were added to the solution.—*Chemical Gazette*, October 15, 1856, from *Archiv der Pharm.* *American Journal of Pharmacy.*

3. *Poisoning from swallowing Chloroform*.—The Philadelphia

Medical Examiner contains an interesting case of death following the ingestion of about one ounce and a-half of chloroform, diluted with about the same quantity of water. The patient was an intemperate woman, who swallowed the liquid by mistake, supposing it to be sweet spirit of nitre. The first symptoms were those of intoxication, followed by insensibility, stertorous breathing, slow and feeble pulse, and great contraction of the pupils. She lived for thirty-six hours, and died asphyxiated, having recovered her senses for several hours before death. The stomach was paler than usual, except in streaks a quarter of an inch in width, from which it was inferred that the organ had been thrown into folds by the irritation of the chloroform, so that only a portion of its surface had been acted on. The mucous membrane was much softened.

4. *Poisoning by Oil of Turpentine*.—Marechal of Tours mentions a case of poisoning by oil of turpentine, caused by a woman living for several days in a recently painted room. The symptoms were those of a painter's colic. He considers that this disease is not produced, as is usually supposed, by the white lead, which is non-volatile, but by the evaporation of the oil of turpentine, whose poisonous action he has proved by several experiments.—*Revue Medicale*.

MATERIA MEDICA AND PHARMACY.

1. *Treatment of Neuralgia by Valerianate of Ammonia*.—The *Union Medicale* for July 8th, contains a remarkable case of cure of neuralgia by a new preparation, resulting from the combination of valerianic acid with ammonia. The patient, a lady, was under the care of Dr. Declat, and the account of the case is taken from the *Bulletin de Therapeutique*. This disease began with the appearance of a wisdom tooth, and had lasted for six years. The extraction of the tooth was followed by no relief. Under the care of Drs. A. Legrand and Jobert de Lambelle all the ordinary remedies were tried in vain; sulphate of quinine, opium, belladonna, sulphate of strychnia, iron, gold, cinchona, etc., internally; poultices of opium, blisters, morphia, dulcamara, chloroform, collodion, aconite, etc., externally. Professors Sedillot and Velpeau saw the patient, without being able to afford her any relief. M. Jobert applied the actual cautery along the track of the inferior maxillary nerve; this had the effect of di-

minishing somewhat the pain, but still the patient could neither eat nor speak, and for six months she was obliged to have recourse to nutritive enemata and baths in order to sustain life. The waters of Plombières (warm saline springs) diminished for a time the frequency of the paroxysms, but during the second season they had no effect, and after the third trial the patient was worse. At this time she became the patient of M. Declat, who began to try Fowler's solution; this was followed by a slight but temporary alleviation, and the specific effects of the arsenic rendered it necessary to abandon its use. He then ordered (January 3rd, 1856) the valerianate of ammonia. A teaspoonful, taken at bedtime, diminished the pain, and rendered night endurable. Two teaspoonfuls procured further relief. On the 6th of January, the patient could go out and talk. On the 19th she could partly open her mouth, and began to eat. On the 3rd of February, she could laugh, and was able to dine out. The dose was gradually increased to a dessertspoonful, night and morning. The improvement was so great that her countenance assumed another aspect, and her appetite returned with her hopes. On the 6th of May, the pain having entirely ceased for several days, the medicine was suspended. Several weeks passed without any return, but afterward, from time to time, darting pains occurred, which were always dispelled by the use of the valerianate.

2. *On the Employment of the Chlorate of Potash.*—By M. ISAMBERT.—In this paper, M. Isambert, after giving the history of the employment of the chlorate since its discovery by Berthollet, its disuse, and recent revival by Hunt and others, states that he has recently investigated its therapeutical action in M. Blache's wards, at the Children's hospital, and its physiological effects by experiments upon himself. Passing over these latter, we briefly present the conclusions he has arrived at in regard to its medicinal employment.

1. *Gangrene of the mouth.*—On carefully examining Mr. Hunt's observations, he considers it very doubtful whether he has always had to do with the true gangrene of the mouth, having rather confounded this affection with the ulcero-membranous stomatitis, in which the effects of the chlorate are truly remarkable. In two cases of gangrene he did not find it very serviceable; and West, who carefully distinguishes between the two affections, seems to have come to the same conclusion.

2. *Ulcero-membranous stomatitis.*—The term, adopted by Rilliet and Barthez, well explains the nature of the affection, there being in fact, both ulceration and the formation of false

membrane present, the one predominating in some cases, and vice versa. It is a most obstinate affection, having no natural tendency to a cure, and being very liable to relapse. West first employed the chlorate in this affection, and his success with it has been amply confirmed by Blache, Herpin Bergeron, and others on the continent. Eight cases which have occurred to the author speak equally favorably. Relapse may, however, occur, though far seldomer than under any other remedy; and it should, therefore, be continued for some time after the fall of the false membrane. The chlorate, too, is powerless against the alveolo-dental pyorrhœa, or ulceration of the borders of the gum, with purulent issue from the alveoli on pressure being made upon the gum. The mean duration of these eight cases was from three to five days for the production of the fall of the membrane, and five to ten for a complete cure. When the cure was longer delayed, relapse had occurred, or the alveolo-dental pyorrhœa was present.

3. *Aphtha*.—The vesiculo-ulcerative state of the buccal cavity to which this appellation is now confined, is in general a very mild affection, and curable by simple means. Sometimes, however, numerous and confluent ulcers produce much pain, impede feeding, and are very tedious in healing, and induce constitutional disturbance. In a case of this kind the chlorate effected a rapid cure.

4. *Muguet*.—M. Legroux has tried it in several cases of epidemic muguet at the Hôtel-Dieu, but without any favorable result. During the trials it was found to pass rapidly into the milk of the nurses, and in this way it may be administered to infants.

5. *Scorbutus*.—M. Frémy has found the medicine of use in this disease; and thus we find the moderns returning by another route to one of the first affections the chlorate was recommended for, on the theory of deoxidizing the salt in the economy.

6. *Diphtheritis*.—Observations commenced by M. Blache, and continued by the author, leave no doubt as to the utility of the chlorate. In this affection there is, however, every gradation from the most simple to the most malignant form, a sign of most unfavorable augury being found in the swelling of the parotid and deep-seated cervical glands—enlargement of the submaxillary glands occurring in even the simplest forms. Of thirteen cases, the chlorate was exclusively employed in four, and the cure was rapid, the cases being mild ones. In two, although cauterization with nitrate of silver was employed at the beginning, the success was attributable to the chlorate. In two others, cauterization was simultaneously employed, but the cure was not more rapid than in the others. The 9th case was a very severe one follow-

ing scarlatina, and the patient was cured by the chlorate and quinine, without the aid of cauterization. The four others died, but they were cases of a very grave description. The chlorate is, therefore, no heroic remedy, always curing angina maligna, nor is its action immediate; for, although it appears in the saliva a few minutes after administration, at least twenty-four hours, and usually three or four days, before it can effect its purpose. It should, therefore, be commenced with early.

7. *Croup*.—The success attendant on the chlorate in diphtheritis naturally led to its employment in croup. The author relates four cases in which the chlorate seemed to have succeeded, and refers to eleven others, in which tracheotomy was resorted to also, whether because the medicine did not seem to be taking effect with sufficient speed, or that tracheotomy having been already employed, it was given as an adjuvant to prevent the reproduction and extension of the diphtheritis. Of these eleven cases, some of which were very severe, there were eight recoveries and three deaths. Between the 1st of January and end of March, 1856, tracheotomy was performed in M. Blache's wards fourteen times with nine recoveries and five deaths, all the children taking the chlorate either prior to or subsequent to the operation. If this success be not due to the occurrence of a run of lucky cases, which occasionally occurs in practice, the result is remarkable, as the proportion of recoveries after tracheotomy, at the same hospital, has averaged during the last six years but one in four to one in five. When tracheotomy has been performed, the use of the chlorate is especially indicated, when there is a tendency in the diphtheritis to extend to the bronchi, pharynx, or nasal passages. It should be combined with expectorants in considerable doses.*—*Gaz. Médicale. Virginia Med. Jour.*

PHYSIOLOGY AND ANATOMY.

1. *Experimental and Clinical Researches applied to Physiology and Pathology*.—By ED. BROWN-SEQUARD, M.D.—From

* We publish the observations of M. Isambert, because we are disposed to think that the salts of chlorine are not regarded with sufficient favor by American physicians. The usual dose of the chlorate of potash is from ten grains to two scruples in the 24 hours, either in the form of powder or solution.—*Ed. South. Med. and Surg. Jour.*

* We concur in the above entirely, using it constantly ourselves with almost uniform success.—*Eds. Am. Med. Monthly.*

August, 1852, to August, 1853, I published in the *Medical Examiner*, of Philadelphia, a series of thirty-three short papers, which was afterwards connected in one volume, under the title: "*Experimental Researches applied to Physiology and Pathology.*" The following article is the first of a second series of papers, which, with the preceding series which has appeared in Philadelphia, will form a complete summary of all my original researches in the various branches of medical sciences.

1. *Artificial Production of an Epileptiform Affection in Animals, and Etiology and Treatment of certain forms of Epilepsy in Man.*

Six years ago, I discovered that certain alterations of the spinal cord, upon mammals, produce, after a few weeks, a convulsive affection, resembling epilepsy. (See *Comptes Rendus de la Soc. de Biol.*, I. ii., pp. 105 and 169—1850.) Since that time, I have found many new facts concerning this affection; and lately, in comparing the result of my experiments with what has been observed in man, in many cases of epilepsy, I have been led to some conclusions which are, I think, very important, as regards the etiology, the nature and the treatment of epilepsy. Although some of the results of my experiments have already been published, (see my *Exper. Researches applied to Physiology and Pathology*, pp. 36 and 80, the *Archives de Médic.*, etc., Février, 1856; and the *Moniteur des Hôpitaux*, Oct., 1856, p. 954) I will relate them here, as I shall have to use them when I expose my views on the pathology and treatment of epilepsy. I will also give a detailed account of some of the facts I have observed concerning animals, because these facts throw a great deal of light upon the phenomena of epilepsy in man.

§ I. I have found that the following kinds of injury to the cord are able to produce epilepsy, or at least a disease resembling epilepsy, in animals belonging to different species, but mostly upon guinea-pigs.

1st. A complete transversal section of a literal half of this organ.

2nd. A transversal section of its two posterior columns, of its posterior cornua of gray matter, and of a part of the lateral columns.

3rd. A transversal section of either the posterior columns or the lateral, or the anterior alone.

4th. A complete transversal section of the whole organ.

5th. A simple puncture.

Of all these injuries, the first, the second and the fourth seem to have more power to produce epilepsy than the others. The

first particularly, *i. e.*, the section of a lateral half of the spinal cord, seems to produce constantly this disease in animals that live longer than three or four weeks after the operation. After a section of either the lateral, the anterior or posterior columns alone, epilepsy rarely appears, and it seems that in the cases where it has been produced, there has been a deeper incision than usual, and that part of the gray matter has been attained. In other experiments, few in number, the section of the central gray matter (the white being hardly injured) has been followed by this convulsive disease. I have seen it but very rarely after a simple puncture of the cord.

It is particularly after injuries to the part of the spinal cord which extends from the seventh or eighth dorsal vertebræ to the third lumbar, that epilepsy appears.

§ II. Usually this affection begins during the third or fourth week after the injury. In some cases I have seen it beginning during the second week, and even one or two days before. At first the fit consists only in a spasm of the muscles of the face and neck, either on one or the two sides, according to the transversal extent of the injury. One eye or both are forcibly shut, the head is drawn towards one of the shoulders, and the mouth opened by the spasm of some of the muscles of the neck. This spasmodic attack quickly disappears.

After a few days the fit was more complete, and all parts of the body, which are not paralyzed, have convulsions. According to the seat of the injury, the parts that have convulsions greatly vary. When the lesion is near the last dorsal vertebræ or the first lumbar, and consisting of a section of the lateral half of the spinal cord, convulsions take place everywhere, except the posterior limb on the side of the injury. If the lesion consists of the section of the two posterior columns, and a part of the lateral columns, and of the gray matter, convulsions take place everywhere without exception, but with much more violence in the anterior parts of the body. When the lesion exists at the level of the last dorsal vertebræ and in a transversal section of the anterior or of the two lateral columns, convulsions are ordinarily limited to the anterior parts of the body; but it is a very interesting fact that they are not always confined to these parts, anterior limbs. After a transversal section of the central gray the two posterior limbs having sometimes very strong tetanic spasms, at the same time that there are clonic convulsions in the matter, or of the whole spinal cord in the dorsal region, convulsions are limited to either the anterior or the posterior parts of the body.

§ III. Convulsions may come either spontaneously, or after certain excitations. The most interesting facts concerning these fits is that it is possible, and even very easy, to produce them by two modes of irritation. If we take two guinea pigs, one not having been submitted to any injury of the spinal cord, and the other having had this organ injured, we find, in preventing them from breathing for two minutes, that convulsions come in both; but if we allow them to breathe again, the first one recovers almost at once, while the second continues to have violent convulsions for two or three minutes and sometimes more. There is another mode of giving fits to the animals which have had an injury to the spinal cord. Pinching of the skin in certain parts of the face and neck is always followed by a fit. If the injury to the spinal cord consists only in a transversal section of a lateral half, the side of the face and neck which, when irritated, may produce the fit, is on the side of the injury; *i. e.*, if the lesion is on the right side of the cord, it is the right side of the face and neck which are able to cause convulsions, and *vice versa*. If the two sides of the cord have been injured, the two sides of the face and neck have the faculty of producing fits, when they are irritated. No other part of the body but a portion of the face and neck has this faculty. In the face, the parts of the skin animated by the opthalmic nerve cannot cause the fits; and of the two other branches of the trigeminal nerve, only a few filaments have the property of producing convulsions. Among these filaments, the most powerful, in this respect, seems to be some of those of the suborbitary and of the auriculo-temporalis. A few filaments of the second, and perhaps of the third cervical nerve, have also this property of producing fits. In the face, the following parts may be irritated without inducing a fit: the nostrils, the lips, the ears, and the skin of the forehead and that of the head. In the neck, there is the same negative result when an irritation is brought upon the parts in the neighborhood of the median line, either in front or behind. On the contrary, a fit always follows some irritation of some violence when it is made in any part of a zone limited by the four following lines: one uniting the ear to the eye; a second from the eye to the middle of the length of the inferior maxillary bone; a third which unites the inferior extremity of the second line to the angle of the inferior jaw; and a fourth which forms half a circle, and goes from this angle to the ear, and the convexity of which approaches the shoulder.

§ IV. Can we attribute to the great degree of sensibility of the face and of the neck the property exclusively possessed by

these parts to produce fits in animals which have had their spinal cord injured? In other words, is it in consequence of the pain felt, that there are fits in these circumstances? This explanation is quite in opposition with the following facts: 1st. When the injury exists only in one of the lateral halves of the cord, the face and neck on the other side have not the power of producing fits, whatever is the degree of the irritation upon them. 2d. In the same case, the posterior limb on the side where the cord is injured, is in a state of hyperæsthesia, and nevertheless, the most violent irritations upon this limb do not produce fits. 3d. It is sometimes sufficient to touch the face or the neck, or even to blow upon them, to produce the fits. Therefore, unless we admit that there is an extraordinary degree of hyperæsthesia in the parts which possess the faculty of producing the convulsions when they are irritated, we must admit that it is not the pain which causes these convulsions. There does not seem to be more sensibility in these parts than in other parts of the body. When a fit, or rather a series of fits, have taken place, and when, consequently, the power of having them is much diminished, it is easy to ascertain that these parts seem not to be more sensitive than others. The animal does not cry more when they are pinched or galvanized, than when other parts are irritated in the same way.

The production of fits by the irritation of certain parts of the neck and face, seems to belong to reflex actions. It is well known that an irritation of the skin and of the mucous membranes may easily produce certain reflex movements, which very rarely take place after an irritation of the trunks of the sensitive nerves. For instance, coughing is almost a constant result of an irritation of the mucous membrane of the larynx and of the bronchial tubes, while it is very rarely produced by an irritation of the trunk of the par vagum. Something similar exists for the production of convulsive fits when the face is irritated in animals upon which the spinal cord has been injured. If we lay bare the nerves of the face and neck of these animals, we find that even the greatest irritations upon them do not produce a fit. Besides, if we dissect a large piece of the skin of the face, so as to let it be in connection with the nervous centres only by the suborbitary nerve, we find that the irritation of this piece of skin is still able to produce convulsions, while the irritation of the very nerve which connects it with the brain does not produce any. It seems, therefore, that it is in the cutaneous ramifications of certain nerves of the face and neck that resides the faculty of producing convulsions in the animals upon which I have injured the spinal cord. There is, in that case, as I will show hereafter,

something resembling what takes place in man in cases where a ligature around a limb is sufficient to prevent a fit of epilepsy.

§ V. What is the nature of the fits that we find in animals upon which the spinal cord has been injured? I think these fits ought to be considered as epileptic. The following description of these convulsions will show that, if they are not positively epileptic, they are at least epileptiform. When the attack begins, the head is drawn first, and sometimes violently, towards the shoulder, by the contraction of the muscles of the neck, on the side of the irritation; the mouth is drawn open by the contraction of the muscles of the neck, which are inserted upon the lower jaw, and the muscles of the face and eye (particularly the orbiculars) contract violently. All these contractions usually occur simultaneously. Frequently at the same time, or very nearly so, the animal suddenly cries with a peculiar hoarse voice, as if the passage of air were not free through the vocal cords, spasmodically contracted. Then the animal falls, sometimes on the irritated side, sometimes on the other, and then all the muscles of the trunk and limbs that are not paralyzed become the seat of convulsions, alternately clonic and tonic. The head is alternately drawn upon one or the other side. All the muscles of the neck, eyes and tongue contract alternately. In the limbs, when the convulsions are clonic, there are alternative contractions in the flexor and the extensor muscles. Respiration takes place irregularly, on account of the convulsions of the respiratory muscles. Always there is an expulsion of fæcal matters, and often of urine. Sometimes erection of the penis, and even ejaculation of semen.

These are the features which render these fits very much like epilepsy. But they seem to differ from the disease, by the three following characters: 1st. The animals sometimes cry during the fits, when they are irritated, and it seems, therefore, that they have not lost their sensibility. Now as the loss of sensibility is considered a symptom essential to epilepsy, it appears that we ought not to consider as epileptic the convulsions existing in these animals. But we cannot admit that this is a decisive objection, when we remark that frequently they seem to be deprived of sensibility, and that, in man, during true fits of epilepsy, there are sometimes periods where sensibility is not lost. 2d. These animals usually have no foam at the mouth, and this symptom has been considered by many writers as essential to epilepsy; but there can be no doubt that there are cases of epilepsy without any foam. Besides, we may easily understand why there is no foam ordinarily in animals: usually their fits do

not last long enough. 3d. The fits in these animals are most frequently a series of fits lasting two or three minutes, and separated one from the other by a period of one or two minutes, during which the animals are able to rise and to stand on their feet. In this respect these animals differ from the majority of epileptic men, who have not a recurrence of fits after so short a period of calm; but there are cases of rapidly-recurring fits in man, and therefore we cannot deny that the fits of these animals are true epileptic fits, on the ground that they have that peculiar character of rapid recurrence.

The apparent differences between the fits in animals which have had the spinal cord injured, and true epilepsy in man, ought not, therefore, to prevent our considering them as epileptic fits. Not only the convulsions resemble those of true epilepsy, but the fits are not mere accidents, and they come by series of two or three, once a week, once a day, or even ten or twenty times a day, and the disease lasts for years. Besides, we find, after long and violent fits, that these animals are, for a time, in a state of drowsiness, like men after epileptic convulsions. It seems rational to conclude, from this discussion, that if the convulsions of these animals are not truly epileptic, they are at least epileptiform.

§ VI. The facts expressed in the preceding parts of this paper lead to many interesting conclusions. *First*, they give a positive proof that an injury to the spinal cord may be the cause of an epileptiform affection. *Secondly*, they show a wonderful relation between certain parts of the spinal cord and certain branches of some of the nerves of the face and neck. *Thirdly*, they show that epileptiform convulsions may be the constant consequence of slight irritations upon certain nerves. *Fourthly*, they show that even when an epileptiform affection has its primitive cause in the nervous centres, some cutaneous ramifications of nerves, not directly connected with the injured parts of these centres, have a power of producing convulsions, that other nerves, even directly connected with them, have not. *Fifthly*, they show that the cutaneous ramifications of certain nerves may have the power of producing convulsions, while the trunks of these nerves have not this power.

§ VII. The constant appearance of a disease very much resembling epilepsy, after certain injuries to the spinal cord, in animals, will perhaps settle the undecided question whether epilepsy in man, may originate from an alteration of the spinal cord or not. It seems very strange that physicians have been so unwilling to admit that the spinal cord could be the seat of

the primitive cause of epilepsy, when they admit that any nerve or any part of the encephalon, being altered, may produce epilepsy. The seat of this disease seems to be together in the part of the brain where resides the faculty of Perception and of Volition, and in the part of the cerebro-spinal axis endowed with the reflex faculty; but, whatever may be thought on this subject, it seems quite certain, from facts observed in man and in animals, that epilepsy may be produced by various kinds of alterations of the encephalon, of the spinal cord and of a great many nerves. In other words, the peculiar disturbance of the cerebro-spinal axis which constitutes epilepsy, may be generated by alterations of various parts of this nervous axis and by many nerves. This view does not agree with that of the most distinguished among the recent writers upon epilepsy. They have hardly spoken of the influence of the alterations of the spinal cord upon the production of epilepsy. For instance, M. Delasiauve (*Traité de l'Epilepsie*, 1854, pp. 175-181) does not speak at all of this influence, and we find that he places a case of epilepsy with an hypertrophy of the spinal cord among many other cases forming a series of doubtful or equivocal alterations. Hasse does not pay more attention than Delasiauve to the share of the spinal cord in the causations of epilepsy. He seems to take notice only of the influence of the alterations of the encephalon. (*Krankheiten des Nervenapparates*, 1855, pp. 266-67.) Romberg (*Lehrbuch der Nervenkrankheiten des Menschen*, 3d edition, 1855, vol. i. part 2, p. 686) has written only a few lines on the relations between alterations of the spinal cord and epilepsy. He thinks that some of the facts related by Oliver d'Angers prove the existence of these relations.

M. Bouchet, who had, in a paper with M. Cazanvielh (*Archives de Medec., etc.*, 1825, t. ix.) mentioned some cases of diseases of the spinal cord with epilepsy, has tried to show in a recent paper, (*Annales Médico-Psychol.*, 1853) that epilepsy is usually connected with the hippocampus major (*cornu ammonis*.)

If we take notice of this fact that the spinal cord is very rarely examined, we understand that although the number of cases on record, as far as I know, of alterations of this organ in epilepsy, amounts only to about fifty, there is an immense number of cases in which after death from the so-called idiopathic tetanus, the brain was examined, but not the spinal cord. In these cases, particularly where nothing is found in the brain able to account for the disease, it should have been of the greatest importance to examine the spinal cord. Such a neglect is a great fault, particularly since the publication made by Esquirol on the result

of his autopsies. In the corpses of ten epileptics, Esquirol, (*Traité des Maladies Mentales*, 1838, vol. i., p. 311) found nine times, various alterations of the spinal cord or of its membranes. In four cases, the spinal cord was softened, particularly in the lumbar region; nine times there were lenticular concretions in the arachnoid, some of which were cartilaginous, some osseous; once there was a great many hydatids in the cavity of the arachnoid.

Mitivie, quoted by Esquirol (*loc. cit.*, p. 311,) found concretions in the arachnoid in two children who died from epilepsy.

Two cases of chronic meningitis with epilepsy, have been recorded by M. Clot. (*Rech. and Observ. sur le Sinûlis*, 1820.) One case of this kind is related by Ollivier d'Angers (*Traité des Maladies de la Moelle épinière*, 3ème edit., 1837, vol. ii., p. 319.)

Calmeil (*De l'épil. sous le rapport de son siège*, 1824) speaks of four epileptics, in two of whom the spinal arachnoid contained many cartilaginous plates, while in the two others the density of the spinal cord was considerably increased.

Bouchet and Cazanvohl have found, in many cases, circumscribed softenings of the spinal cord, and other alterations of this organ and its sheath.

Forget, quoted by Ollivier d'Angers (*loc. cit.*, vol. ii., p. 571,) has seen two very important cases, which have a great analogy with what I have found in animals.

Jendrin, quoted by Ollivier (vol. ii., pp. 502 and 520,) has found in two epileptics a tubercle in the cervical region of the spinal cord.

Barthez and Rilliet (*Traité des Maladies des Enfants*, 2d edit., 1854, vol. iii., p. 589) relate a very curious case in which epilepsy existed in a girl, who had angular curvature of the spine in the dorsal region. The symptoms were very much the same as those existing in my animals, and, as it is in them, there was no foam at the mouth. There was no alteration in the nervous centres, except in the dorsal region of the spinal cord, which was almost liquefied. This softening occupied the whole of the cord transversely, and was about one centimetre long.

I might add many other cases of alteration of the spinal cord in epileptics, recorded by writers of the previous centuries, such as Bouet, Lieutaud, Morgagni, Musel, &c. In the work of Portal (*Observe. sur la Nat. et le Traitement de l'Epil.*, 1827, p. 28) there is a curious case of epilepsy, with a dilatation of the central canal of the spinal cord, which was filled with water.

If epilepsy has truly been the result of an alteration of the spinal cord in all as some of the above cases, it might be asked

why there are so many cases of diseases or injuries of the spinal cord without epilepsy. This objection loses its value when we remark that every day there are cases of tumors and various alterations of the brain without epilepsy, and that, nevertheless, no one doubts that this disease is sometimes produced by such lesions. Besides, I have found that certain kinds of injury to the spinal cord, in animals, produce more frequently than others an epileptiform affection, and there is only one kind of injury which seems to produce it constantly. This injury consists in a section of the whole of a lateral half of the spinal cord. I do not know of a single case, in man, where life has been saved after such an injury had been done to the spinal cord. In some cases, where, probably, a great part of the lateral half of this organ had been divided transversely, there has been no epilepsy. Such a case is recorded by Morgagni (*De sed. & causis morborum*, ep. 53, § 23); another by Boyer (*Traité des Maladies Chirurg.*, 1ère edit., vol. vii., p. 9,) and a third by my friend M. Vigùès (*Moniteur des Hôpitaux*, 1855, p. 838.) In animals, after an incomplete transversal section of a lateral half of the spinal cord, epilepsy is not very frequently produced. Therefore the negative facts concerning the influence of this injury in man, cannot be considered as a proof that man does not resemble animals in this respect.

I think the following conclusions may be drawn from all that I have said concerning the influence of alterations of the spinal cord upon the production of epilepsy: 1st. There cannot be any doubt that in animals certain injuries to the spinal cord frequently produce an epileptiform affection, if not true epilepsy. 2d. That in man there are a great many cases which seem to prove that alterations of the spinal cord may cause epilepsy.

Now, as we well know that the spinal cord has the same organization and the same vital properties, in animals and in man, it seems, from the first of these conclusions, that it may be stated more positively than I have done in the second, that epilepsy may result from alterations of this nervous centre.

§ VIII. Physicians admit now, two kinds of epilepsy, one of centric and the other of peripheric origin. I will try to show that although it seems to be of peripheric origin, it may, in some cases, be in reality of centric origin.

In animals, after an injury of the spinal cord, if we did not know that this injury exists and is the first cause of the disease, we should be led to admit that it is of peripheric origin, in finding that an irritation upon a very limited part of the spine produces fits. In a very important case of epilepsy recorded by

Odier, the same thing has existed as in my animals. For many years the disease seemed to be of peripheric origin, and the autopsy has revealed that this was a mistake. This case is so interesting, in many respects, that I will give here a summary of its principal points.

CASE I.—A man had frequent *cramps* in the little finger of the right hand. The contractions went on increasing in extent and frequency; they by degrees extended to the fore-arm, the arm and the shoulder, always beginning in the little finger. At last they arrived at the head, and true fits of epilepsy, with loss of consciousness, took place. By means of two peculiar ligatures round the arm and the forearm, and which the man could tie easily, when he felt the first contractions of the little finger, the attacks were prevented at every threatening for two or three years. Unfortunately, he eat and drank too much, and being intoxicated, he forgot the ligature when the initial cramp appeared, and then he had a violent fit. From this time the ligature had no more influence over the fits; they became very frequent and always began in the little finger. Paralysis came on, and the patient died in coma.

Autopsy.—An enormous tumor was found in the left side of the brain, below a place where the cranium had been wounded long before. (*Odier, Manuel de Médecine Pratique*, 2de edit., 1811, p. 108.)

This case, and the facts observed in man, positively show that the apparent outside origin of epileptic fits does not prove that there is not an organic cause in the nervous centres.

SURGERY.

1. *Traumatic Tetanus successfully treated by local Application of Chloroform to the Spine*.—By F. HINKLE, M.D., of Marietta, Pa.—Mrs. D. E., æt. 38 years, of feeble constitution, the mother of six children, the last being but five months old when the following accident occurred. Having decapitated a large eel, preparatory to stripping off the skin, she attempted to hang the head upon a nail. While doing this, the jaws snapped and caught the index finger of the left hand upon its internal surface, between the second and third phalanges, directly over the joint. The contraction of the jaws was so firm that she was obliged to open them by inserting a knife and forcing them apart.

The pain caused by the bite produced partial syncope. Upon

examining the finger she found that the skin was divided in several places along the line made by the jaws. The finger became purple and tumid on its internal surface, attended with acute pain.

She engaged more or less in her household duties from this time until November 16, a period of three weeks, when she consulted me. She informed me that since the accident she had suffered pain of a dull, aching character, at times more or less acute, according as she used the affected hand. She now presented the following symptoms: pulse 58, very soft and slow; skin hot and dry; tongue slightly coated; bowels had not been moved for two days; acute pain, recurring every fifteen or twenty minutes in the epigastric region, and extending into the hypochondriac region on each side. This affected her breathing, especially when the pain was severe, showing that spasm of the diaphragm was present. Eyebrows contracted; *alæ nasi* expanded, producing an anxious expression of countenance. It was impossible for her to open her eyes to more than half their extent.

Upon examining the finger, the punctures made by the teeth could be distinctly seen. Pressure over this surface caused acute pain, which darted along the arm, up her neck, along the spinal column, head and face. There was not a nerve about the head or extremities but what was painful upon pressure. The stiffness, as she termed it, of her face and limbs, with difficult deglutition, had been coming on for four or five days before I was called, she thinking it was only a bad cold. She could not sleep at night on account of spasms, which commenced at the diaphragm and extended to the head and extremities.

Treatment.—I directed her to take four compound cathartic pills, to be followed by a dose of castor oil, if required; and to have her feet bathed in hot water, to which mustard had been added. A large pad of raw cotton covered with muslin to be laid along the whole length of her spine, and half an ounce of chloroform, mixed with one drachm of ether, to be dashed suddenly along the skin; the pad then to be secured over the spine by tapes tied in front of her chest. The patient was now turned on her back, and a drachm of the mixture was applied to the epigastrium, which was also covered with cotton. This afforded almost instant relief to the spasms, and mitigated the pain along the main nerves. The wounded finger was also bathed in chloroform to be repeated every two or three hours.

Nov. 17th, 9 o'clock, A.M.—No improvement; symptoms the same, but yielded readily to the application of chloroform. When the applications were not made, her sufferings were very much

increased. Breathing more labored; bowels moved twice, but not freely. To use the chloroform more frequently, and give the following powder: *R.*—Hyd. chlor. mitis grs. viii.; pulv. ipecac, gr. j.—*M.* To be followed by a dose of Epsom salts; also to take a spoonful of the following mixture every two or three hours: *R.*—Spts. æther. nit. f 3j; ol. terebin. f 3j; ext. cannab. ind. ʒj.—*M.*

18th, 8 o'clock, A.M.—Found the patient much better. She has had two or three dark-colored dejections. Pulse 66; features less contracted. The pain in finger, cervical ganglia, stiffness of neck and jaw are all much improved. Can bear more pressure on the spine and along the course of the nerves. To continue the applications of chloroform, particularly to the wounded finger and to the arm and neck of the affected side; and, in addition, to take the following pill every four hours: *R.*—Ext. cannab. ind. gr. j; mass. hyd. gr. $\frac{1}{2}$; pulv. rhei. iss.—*M.*

19th.—Symptoms continue favorable; pulse 60; tongue nearly clean; bowels moved; pain diminished, except in the arm and neck of right side. Countenance still indicative of the disease. Treat. cont.

20th, 9 o'clock, A.M.—Symptoms improving; pain diminishing. Continue treatment.

21st, 11 o'clock, A.M.—Decidedly better; difficulty of deglutition nearly gone.

22nd.—Feels tolerably well, but says that if she could only sleep at nights she would be better; she finds her mind constantly wandering the moment she dozes. Pulse 60; skin moist; tongue clean. She can insert the end of her little finger between her jaws; pains have nearly left her. Treatment continued. Left the patient in good spirits, considering her nearly convalescent.

23th.—Sent for, in great haste, at 3 $\frac{1}{2}$, A.M. Found her sinking rapidly; pulse not perceptible at the wrist; features greatly contracted; eyebrows corrugated; jaws closed; eyelids closed, without power to open them; left pupil dilated; skin cool; finger painful; general muscular contraction, especially the diaphragm; breathing labored and painful; countenance anxious; deep livid hue of the face; acute pain every ten minutes, commencing at diaphragm and extending to spinal column, ends of fingers and toes. Could not bear pressure on any part of the body without a jerk, like an electric shock. Gave brandy every fifteen minutes; applied chloroform freely to the epigastrium, spine, neck, arm and finger. Could not see her tongue; bowels moved yesterday. Gave three ounces of the best brandy with Hoffman's anodyne and tincture of valerian in an hour. Also two grains of ext.

cannab. ind. Pulse now gradually rose to 50. Chloroform controlled the pain.

7, A.M.—Pulse 54, fuller; countenance more natural and less livid; pupils equal; better temperature of skin; breathing still difficult, but not so painful. I now applied one or two ounces of chloroform every hour or two, just as the pain returned and thus again prevented the spasms, which were anticipated the whole day.

1, P.M.—Applied caustic iodine to her finger every four hours, so as to blister it freely, but not expose it so much as a fly-blister necessarily would do.

8, P.M.—Pulse 55, rather feeble; skin moist and cool; bowels not yet moved; dyspnoea not so constant; otherwise the same as last visit. Directed her to use brandy and beef-tea freely; gave pills composed of quinine, ext. cannab. ind., and mass. hydrar., every three hours, and to continue the local applications.

25th, 10, A.M.—Tetanic symptoms milder; longer intervals between the pains, and they are less violent; breathing improving; pulse 54, soft and feeble; voice faint; jaws stiff, as are most of her muscles, yet the chloroform has removed all the acute pain. Continue treatment; and, in addition, use twelve drops of the following mixture every two hours: *Rx.*—Spts. æther. nit. f 3ss.; ol. tigllii, gtt. j.—*M.* If dyspnoea returns, to use Hoffman's anodyne and tinct. valerian.

A consultation having been agreed upon, Dr. J. Aug. Ehler, of Lancaster city, met me at 7, P.M. We found her slightly improved. Breathing not so painful; skin warmer; countenance more lively and less livid; features still contracted; the other symptoms remained as they were at my last visit. Pulse 54. She has taken has taken half a pint of brandy, with beef-tea. Continued treatment. Dr. E. ordered the cannab. ind. in large doses.

She continued to improve and relapse for four days, supported by brandy, beef-tea, emulsion of carbonate of ammonia and tr. musk.

The bowels were kept regular by castor oil. The ext. cannab. ind. was given to relieve pain and spasm, and the chloroform continued.

30th.—The disease was now evidently checked, and from this period her recovery gradually took place. By December 10th, she was perfectly well.—*Am. Jour. Med. Sci.*, Oct., 1856.

2. *Mode of Reducing Dislocation of the Thumb.*—By JOHN DOE, M.D., of Cabot, Vermont.—Having had occasion to reduce

a dislocation of the thumb several times, when the first phalanx is thrown upon the dorsum of the metacarpal bone, and having never encountered any particular difficulty in effecting it, it has been a cause of surprise to me that the method I am now to describe is not more generally known. There is not an English writer on surgery, from Sir A. Cooper to Ferguson, nor an American one, so far as I know, that alludes to this method; and if we are to judge from an article by E. Demarquay, published in the *Medical News*, of May, 1852, and accredited to the *Bulletin de Thérapeutique*, it might well be presumed that the French are also innocent of practising or teaching it.

The common method of reducing this luxation is, as is well known, to flex the thumb, fasten upon it a tape with a clove hitch, and with this make extension. If this, or more violent means, does not succeed, we are directed either to abandon the attempt at reduction, or what is still worse, effect it by making incision, or by amputation of the end of the metacarpal bone. Extension has sometimes been persevered in to such a degree that the soft parts have been lacerated, or the thumb actually torn off; and in *Braithwaite's Retrospect*, part xxii., M. Blandin describes a forceps well calculated to do this.

In this dislocation, the phalangeal end of the metacarpus projects into the palmar surface of the hand, forcing itself between and through the flexor muscles of the thumb, which form a loop around the head of the bone. Extension made upon the thumb makes this loop more tense; and as the metacarpal end of the first phalanx is broad and considerably flattened on its palmar aspect, it must be apparent at once that the difficulty of reduction is directly as the amount of extension. There is good reason to believe that extension would never succeed in these cases without rotation. The principal indication in treatment here is to relax the flexor forming the loop, so that the end of the phalanx can be pushed forward into the loop, and by carrying the muscles forward with it, disengage the head of the metacarpus. This can be done in the following manner:

Having previously warmed the hand, if cold, in warm water, the surgeon should seat himself by the patient, facing in the same direction, and upon the same side with the injured thumb, and place the thumb upon his knee. Tip back the thumb upon the dorsum of the metacarpus to more than a right angle, or so as to form a slightly acute angle with the latter bone; place both index fingers against the ball of the thumb, and the ends of both thumbs against the dorsum of the disarticulated end of the phalanx; now by pushing forward forcibly, yet steadily, against the

phalangeal bone with both thumbs, reduction will generally be effected on the first trial, and almost instantly.

The writer claims not the honor of originating this method, but supposes it to be adopted by many surgeons in this country. —*New Orleans Medical News*, Oct., 1856.

PRACTICAL MEDICINE AND PATHOLOGY.

1. *Veratrum Viride*.*—Dr. WATSON, of Nashville, publishes the following cases:

No. 1. This was a negro girl belonging to Mrs. Horton, of this vicinity, aged 17 years. I found her laboring under all the symptoms of pleuro-pneumonia. She was successively bled, cupped, tartarized, blistered, etc., with but slight benefit. Believing that she would soon die, unless the arterial excitement could be subdued, I gave 12 drops of the tincture of veratrum. In 10 or 15 minutes there was a profuse secretion of saliva; in a half hour she became violently sick at the stomach, and the pulse was reduced from 130 to 60 per minute. The retching was very distressing, so much so, that I became alarmed. I staid with her two hours, at the end of which time the sickness had pretty much subsided, and was followed by a copious bronchial secretion. This was about 12 o'clock at night. When I returned the next morning, the sickness was entirely gone, and the pulse had recovered its former velocity. The veratrum was repeated in 8 drop doses every two hours; the second portion produced the desired effect, when it was withheld. From this time the patient rapidly recovered, it only being necessary to repeat the medicine on but one other occasion.

No. 2. A young man, aged 25 years, named Mahon, who worked in the Nashville manufactory, was seized with pneumonia. He sent for Prof. Watson, who could not be found. Waited for him two days, when I saw him. Gave him two drops of veratrum, repeated every two hours, increasing three drops upon each repetition. When I returned I found him exceedingly sick, (and having taken the third portion) vomiting every few minutes, and throwing off large quantities of mucus. Such was the effect of the first resort to the veratrum, that it was unnecessary to re-

* In the First Part of this number, we have published three cases of pneumonia treated with *Veratrum Viride*.—ED. SOUTH. JOUR. MED. AND PHYS. SCI.

peat it, or to use any other remedy. After the nausea subsided, a beautiful diaphoresis occurring in connection with free expectoration, a cure was speedily effected.

No. 3. Mr. Mosely, aged about 60 years, was seized with pneumonia. Gave the veratrum, as in the former case, with like results, it only being necessary to repeat it a second time, when he was relieved.

No. 4. W. Thomas, aged 25 years, was attacked with acute rheumatism—he used the lancet, colchicum, opium, lemonade, etc., etc., with but little benefit—gave the veratrum with the highest success. The pain in this case was excessive. As soon, however, as he was brought under the influence of the remedy, a most soothing anodyne effect was induced, with copious diaphoresis. It was necessary to repeat the veratrum for three successive days, when he was relieved.

No. 5. A little child of Mr. Jones, seen in company with Dr. J. S. Young, of this city. Cerebral inflammation of several days standing—advised veratrum in two drop doses—no effect—it may have been too late.

No. 6. A negro boy belonging to F. R. Barnes, aged 22 years. Pneumonia—treated him several days with the usual remedies—could not subdue the pulse with the lancet, although resorted to several times—could not nauseate the stomach with tartar. Gave veratrum in doses of 16 drops repeated on three successive days, without the slightest effect. Patient recovered, as I think, from the benefits of a copious bleeding, resorted to on the 7th day.

No. 7. The last case, though many others might be detailed, was that of a child, aged 18 months, of J. O. Wright. Pneumonia—used tartar, warm bath, calomel, etc. Gave one drop of veratrum—waited two hours, gave three drops. Patient became calm and slept. The pulse was reduced from 140 to 40 per minute. The narcotic effect was greater in this case than in any I have observed. In fact, it was so great, and the pulse so much reduced that I became alarmed, and watched it with no ordinary degree of solicitude. In due time, however, the pulse rallied, and in 8 or 10 hours the effects had entirely passed off—the remedy was repeated in two drop doses on two other occasions. The child recovered rapidly.—*Nashville Journal*.

2. *Treatment of Neuralgia by the Valerianate of Ammonia.*—Dr. Declat relates, in the *Bulletin de Therapeutique*, several cases which prove the happy effects that may be anticipated from the use of the above remedy.

Case 1. Madame the Marchioness of Fontanelle, (the lady has

authorized us to give her name) was attacked six years ago with facial neuralgia of the most severe description. The pain was first experienced while cutting a wisdom tooth, which was late in making its appearance. As this tooth came through in a wrong direction, Drs. A. Legrand and Jobert de Lamballe ordered its extraction. The pain was so violent that Madame de Fontanelle was unable to open her mouth, and they were obliged to give her chloroform.

In presence of the consulting physicians, Mr. Evans performed the operation of extraction with great skill. After the removal of the tooth the neuralgia still continued. All the ordinary means were employed to relieve it; internally, sulphate of quinine, opium, belladonna, sulphate of strychnia, iron, gold, and quin-quina were administered, as well as external applications of opium plaster, blisters, morphia, chloroform, collodion, aconite, etc., etc.

Professors Sedillot and Velpeau saw the patient without being able to give her any relief. Professor Jobert de Lamballe proposed and obtained permission to apply the actual cautery over the course of the inferior maxillary nerve. This treatment, so terrifying to a woman, slightly lessened the acuteness of the pain, but failed to overcome it; and though suffering less, Madame de Fontanelle could neither eat nor sleep; being compelled, during at least six months, to have recourse to nutritive enemata, and tonic baths to preserve her health and life.

The waters of Plombières diminished, for a time, the frequency of the pains; during the second season no benefit was derived from their action; the third her malady was increased. She was in this suffering state when, on the 19th December, 1855, she was placed under my care.

The amelioration of her complaint, produced by the waters of Plombières during the first season, determined me to use Fowler's solution.

The invalid consented the more willing to this means as she preferred death, she said, to insanity from suffering. One of her friends, also, Madame de Balzac, had written to her from Germany, that this remedy was in frequent use in the country in which she lived, and that it had, to her knowledge, cured more than one case of neuralgia.

From the 19th to the 22d of December, 12 drops in the morning, 12 drops at noon, and 12 drops in the evening of the following mixture were given her: Fowler's solution, $\frac{1}{2}$, mint water, $\frac{3}{4}$.

On the 22d, there was a little improvement, but the tongue was red, and she suffered much pain in the stomach; Madame de

Fontanelle would not consent to diminish the next dose, as the slight amelioration she had experienced made her sanguine of more complete relief.

On the 24th, vomiting, diarrhoea, cramps in the stomach and pains returned. We discontinued the medicine.

On the 3d of January, 1856, the agony was unendurable, and my patient was in despair. I tried the valerianate of ammonia.

A tea-spoonful, taken in the evening, modified the pain at night and rendered it bearable. Two tea-spoonsful the next day gave complete relief.

On the 6th of January the patient could rise and speak.

On the 19th she half opened her mouth, and began to eat. The 3d of February, Madame de Fontanelle came up to me smilingly, and welcomed me, saying "Doctor, I have been well enough to dine in town; I can laugh; in society they look upon me as one risen from the dead." We gradually increased the dose to a desert-spoonful morning and evening; the improvement now became so great that her countenance resumed an entirely different aspect, and her appetite came back as hope returned.

Finally, on the 6th of May, the pains having for several days entirely ceased, we suspended the use of the medicine. Several weeks passed without a single twinge; but at the return of the first pain the Marchioness snatched the bottle and took a dose of the valerianate.

From time to time some shooting pains were felt; but every time the valerianate was resorted to they disappeared. The improvement continues, and there is nothing to cause us to anticipate that the remedy will lose its efficacy should the disease return.

The case given above is one of importance. From the first the patient had been attended with care, and even affection, by the most eminent physicians; for six years almost every known means had been employed, without results of any duration.

This case of neuralgia was much more obstinate and unmanageable from its being an hereditary affection. Madame de Fontanelle's mother had suffered fearfully from a similar neuralgia. Her brother, the Count of Essex, (sic!) has had *tic douloureux* from his youth; and he is as well known in England from the great suffering he has gone through from it as from his high position.

Dr. A. Legrand has, throughout, watched this cure which he had pronounced hopeless six years ago; wishing himself to verify the value of the new medicine, he ordered it in the same doses to Madame de V——, whom he considered equally incurable. We

know that the relief has been quite prompt; but we understand, from his having too rapidly increased the dose, that some cerebral disturbance was produced. These symptoms, however, disappeared as soon as the valerianate was given in proper doses. At present Madame de V—— considers herself cured.

CASE II.—M. E. Letellier accompanied his wife to Plombières. During his sojourn at the waters, in the beginning of October, he was attacked with a pain in the head; this pain extended to the muscles of the neck, passed through the top of the head and lost itself in the branches of the facial nerve. It was impossible for the patient to raise his head from the pillow. Various remedies were tried at Plombières, but the pains increased, and the sufferer was taken back to Paris.

The least movement was so painful to him that he could only bear the journey by having his head supported by Madame Letellier's hands.

Dr. Louis tried blisters, sage, quinine and morphia, without any effect. To relieve his pain, M. Letellier took so much morphia as to fall into an alarming state of torpor.

On the 1st of October, 1855, we found the sick man in a state of extreme agony; he had not taken any morphia for two days, and suffered constantly.

On the same day we began to use the valerianate of ammonia, two tea-spoonsful during the day in a half glass of eau sucrée. That night he had a little rest.

By continuing the use of the valerianate without increasing the dose, the patient was able to get up at the end of five days. On the ninth day he walked out to take a bath; he no longer felt any pain except in his neck and the back of his head; his nights became comfortable, his abilities and aptitude for business entirely restored.

Finally, from the 24th of the same month we discontinued our visits.

We met him again recently, and he tells us that he has had some slight twinges which are at once dissipated by a spoonful of the valerianate.—*La Revue Médicale Française et Étrangère.*

OBSTETRICS.

1. *Uncontrollable Vomiting in Pregnancy.*—The attention of physicians has of late been directed towards the subject of excessive vomiting during pregnancy, with a view to discover some

more efficient mode of treatment than that usually employed for this unpleasant and sometimes alarming symptom. Although the cause of the vomiting has always been recognized as seated in the uterus, yet the means at our disposal for ascertaining the condition of that organ having until of late been limited, it has been necessary to treat the disease as one of the stomach, and to address remedies chiefly to that organ. It is needless to say that in many cases this mode of treatment is ineffectual. Instances now and then occur in which, in spite of the employment of prussic acid, creasote, alcalis, acids, narcotics, leeches, blisters, sinapisms, the vomiting still continues unabated, or increases sometimes to such a degree as to render necessary the artificial induction of abortion as the last resource, and that a doubtful one, in order to save the life of the woman, if indeed that result does not follow spontaneously the violent contractions of the stomach.

It is now well known that in these cases there is often something more than the presence of the ovum in the uterus, and the enlargement of this organ, to account for the sympathetic irritation of the stomach. The speculum often reveals various morbid conditions of the cervix, and since the removal of these conditions, or their diminution, by appropriate local treatment, is followed by a cessation or diminution of the vomiting, it is fair to attribute this exaggeration of a natural phenomenon to a morbid condition of the parts which are concerned in its production. An interesting case confirming this view, which we see reported in a foreign journal, suggested to us the above remarks, and believing that it may serve to call the attention of others to this interesting subject, we give a brief abstract of the paper which was read by Dr. Brian, before the French Academy of Medicine.

A woman aged 25, of good constitution, became pregnant for the third time at the beginning of March, 1856. In the middle of April, vomiting began and continued, gradually increasing in frequency and violence. About the first of May, the patient was obliged to keep her bed. The stomach soon became incapable of retaining or digesting any thing. Severe gastralgia, thirst and constipation followed, combined with spasmodic movements, profound depression and emaciation. After all remedies which could be thought of had been tried, a vaginal examination showed that the uterus was completely retroverted, and incarcerated in the hollow of the sacrum. It was disengaged from this situation, and placed in its normal position. Immediate relief followed, and the vomiting ceased, to return no more.


It does not absolutely follow that because obstinate vomiting is

sometimes owing to a definite source of irritation seated in the uterus, this effect should always follow such local cause. Women in whom there is every reason to believe that the so-called ulceration, or the granular condition of the cervix exists, may go through pregnancy without unusual vomiting, just as these conditions are sometimes found after death in persons who never suffered during life from leucorrhœa, bearing-down pain, or other troubles usually associated with them; but the fact that the two sometimes, perhaps often, stand in the relation of cause and effect, is a sufficient reason why the uterus should always be examined in every case where the vomiting can not be controlled by general remedies, that any abnormal condition may be rectified by appropriate treatment.—*Boston Journal.*

PART IV.
EDITORIAL AND MISCELLANEOUS.

EDITORIALS.

With pleasure we notice the great improvement in the "getting up" of our medical exchanges for January. If it does not indicate a healthful condition of the financial department of each one, it is at least manifest that the several publishers feel the importance of their enterprizes, and are determined upon sustaining them.

 We intend introducing a new feature into our Journal in the March number, and will continue it as opportunities are presented. This consists in presenting to our readers condensed histories of the founding and support and management of the various charitable Institutions in Tennessee, illustrated with engravings.

The first of the series will be found in the March number. The efficient superintendent, Prof. A. G. Scott, of the Tennessee Institution for the Deaf and Dumb, has prepared a full history of the Institution, which will be illustrated with a beautiful electrotype engraving of the building.

TO PUBLISHERS.

Books for review and exchanges must be directed to the Journal at KNOXVILLE, TENN. They may be transmitted either through mail, or through J. A. Rayl, or Hanigan & Co., Booksellers of Knoxville, Tenn., or through W. T. Berry & Co., of Nashville Tenn.

TO ALL WHOM IT MAY CONCERN.

In order to extend our subscription list, we sent out several hundred copies of the January number of our Journal to those who were not subscribers, as a *specimen number*, requesting all those who did not wish to subscribe to return the number. We are so pleased with this experiment that we send in like manner this number to many others and hope they will also cheer us in our labor of professional love by ordering their names to be enrolled on our list, and accompanying it with the remittance *in full*.

~~One~~ One of our subscribers writes to discontinue, because the matter of which our Journal is composed, is not strictly medical.

Another subscriber writes that he wishes us abundant success, because he can find something of interest in all the departments of science in its pages.

Which of the two shall we strive to please? Truly spoke the poet,

“Many men of many minds.”

AMERICAN MEDICAL ASSOCIATION.—CONVENTION OF THE EDITORS
OF THE AMERICAN MEDICAL PRESS.

We have already announced that the next session of this Association is to be held in the Hall of the House of Representatives in the city of Nashville, Tenn., on the first Tuesday in May next. Many things conspire to render the ensuing meeting one of peculiar interest, and from the accessibility, as well as central location, of the place of meeting, there will be in attendance delegates from every section of the Union. They will come up from the sunny south, as well as from the remotest north—from the Atlantic seaboard and from the western prairies, as well as from the golden land on the Pacific coast, all to aid in sustaining this bond of union, and to exchange views and experiences in treating the diseases incident to each section of our land of many climes.

Many valuable reports are to be presented, in all of which the profession are interested. One above all others, the report on Medical Education, will call forth, as it merits, the strength and the talents of the members present. It may be regarded as a hackneyed theme—but still there is a reform called for in the mode of teaching and graduating students of medicine, and until it is effected the subject will always be open for discussion. We do not expect that perfection will be attained by any one change in the mode, for that would be contrary to the order of things; but like every other system, it will progressively improve as time moves on, and as the science advances. We have long enough pursued the present system of medical education. It was adopted in the infancy of the science, and it will be readily admitted by every distinguished member of the profession, that it is not commensurate with the present state of the science. Any one acquainted with the mode of teaching can see that there are deficiencies—but what remedy to propose different men think differently. The present mode is easy enough for instructors, after they have once prepared a course of lectures, but the reform needed, whatever it might be, will require as much labor to prepare for the twentieth course as for the first. Apropos to this old fogysm of instruction, we have heard that a Professor of chemistry during the past winter in one of our medical schools informed his class that so far as practical medicine was concerned we know no more at the present day than was known by the profession in the days of *Æsculapius* and *Galen*. It is to adapt the teaching of our medical schools, and the private instruction of our offices, to the medical science of to-day that a reform is needed.

We have another suggestion to make. There are in our country about forty medical journals, in the editing of which at least one hundred physicians are actively engaged. Could the profession throughout the Union look in upon the labors of these editors—and then get a peep at the debit and credit pages of their books, they would be convinced that they manifest a most self-sacrificing spirit for the promotion of their profession of medicine. They will see that pecuniarily three-fourths of these

Journals require actual cash from the pockets of the editors to meet the incidental expenses. They will see that there are hundreds on every subscription list who once beginning, continue to receive their Journal for years without ever once cancelling the annually increasing debt. While they see this, they will be surprised to know that in despite of all discouragement, these men will continue at the post of labor—and they may draw the inference, that though not a post of profit, they must certainly regard it as a post of honor, or else they would not thus stand by their colors. Strike out every medical journal for want of support, and what a deplorable picture the profession would present. No progress—no interchange of views—no kindly feelings between remote parts of the country. It would be an army without banners—or a ship without sails. Such in truth is the position which medical journals occupy towards the profession. And the question naturally forces itself upon us, what shall be done to prevent the drain which they have heretofore made upon the purses of their untiring editorial corps? How can the profession be brought to regard them in their proper and legitimate character? Should not something be done to collect into one volume, semi-annually or annually, such original papers as appear regularly in their columns?

We propose therefore that during the sitting of the American Medical Association at Nashville, there be a *Convention of the Editors of the American Medical Press* to deliberate upon all subjects pertaining to the support and progress of American medical periodical literature.

We ask the opinion of the editorial fraternity on this subject, and if the proposition meets with favor, let there be a full attendance upon the convention.

SUBSCRIBE OR RETURN THE NUMBERS.

We did believe that those physicians to whom specimen numbers were sent of the January number would either have subscribed or returned the number. We think that we presented

them a fine specimen, and we must request that if they are not inclined to subscribe, they will at least return us the number sent. It is a valuable number on account of the map, to say nothing of the articles. And as the subscription price is only *Three Dollars*, being next to the cheapest medical journal in the Union, we hope yet that our medical friends will view us with such favor as to remit the amount at once. Again, accounts were sent out to many who owe for the past two years. If they will not remit, we must candidly say that we cannot afford longer to furnish our Journal to them. But we hope to receive your remittances before another number, and *we will be friends together*. But if you wish to cut our acquaintance, return the two numbers of this year, and we will understand the position you occupy, and will act accordingly.

TO PUBLISHERS AND EXCHANGES.

The following books, pamphlets and exchanges have been received since last issue :

Tenth Annual Report of the Board of Regents of the Smithsonian Institution, &c., and the proceedings of the Board up to March, 1856—Washington, D. C. (From the Institution.)

The Microscope and its Revelations. By WILLIAM C. CARPENTER M.D., F.R.S., &c., with an appendix containing the Applications of the Microscope to Clinical Medicine, etc. By Francis G. Smith, M.D., of Philadelphia. Illustrated. Philadelphia: Blanchard & Lea, 1856. (Through W. T. Berry & Co., Nashville, Tenn.)

A Practical Treatise on the Diseases of the Testis, and of the Spermatic cord and Scrotum. By T. B. OURLING, M.D., 2nd American from the 2nd English Edition. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

The Principles of Surgery. By JAMES MILLER, F.R.S., 4th American from 3rd English Edition. Illustrated. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

An Introduction to Practical Chemistry, including Analysis. By JOHN E. BOWMAN, F.C.S. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

Physical exploration and Diagnosis of the Diseases affecting the respiratory organs. By AUSTIN FLINT, M.D., Prof. of the University of Louisville. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

The Practical Anatomist, or the Students Guide in the Dissecting Room. By J. M. ALLEN, M.D. Illustrated. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

Atlas of Cutaneous Diseases. By J. MOORE NELIGAN, M.D., &c. Philadelphia: Blanchard & Lea. (W. T. Berry & Co., Nashville, Tenn.)

On some of the Diseases of Women admitting of Surgical Treatment. By ISAAC B. BROWN, F.R.C.S., &c. Blanchard & Lea, Philadelphia: 1856. (W. T. Berry & Co., Nashville, Tenn.)

Manual of Chemical Physiology, from the German of Prof. C. G. LEHMAM, M.D. Translated with notes and additions by J. Chester Morris, M.D., with an Introductory Essay by Prof. Samuel Jackson, M.D. Illustrated. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

The Principles and Practice of Ophthalmic Medicine and Surgery. By T. WHARTON JONES, F.R.S. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

An Analytical Compendium of the various branches of Medical Science. By Profs. JOHN NEILL, M.D., and FRANCIS G. SMITH, M.D. A new edition. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

The Dissector's Manual, &c. By ERASMUS WILSON, F.R.S. 3rd American Edition. Edited by WILLIAM HUNT, M.D., Demonstrator, University of Pa. Philadelphia: Blanchard & Lea, 1856. (W. T. Berry & Co., Nashville, Tenn.)

A Practical Handbook of Chemistry. By JOHN E. BOWMAN, F.C.S. Philadelphia: Blanchard & Lea.

The Transactions of the American Medical Association; vol. viii., for 1855, and vol. ix., for 1856. Philadelphia. Printed for the Association by T. K. & P. G. Collins.

The Obstetric Memoirs and Contributions of JAMES Y. SIMPSON, M.D., F.R.S. Edited by W. O. Priestly, M.D., Edinburgh and H. R. Storer, M.D., Boston, U. S. vol. ii. Philadelphia: J. B. Lippincott & Co., 1856. (From the Publishers.)

Human Physiology, Statistical and Dynamical, or the Con-

ditions and Course of the Life of Man. By JOHN W. DRAPER, M.D., Prof. Chemistry and Physiology. Illustrated. New York: Harper & Brothers, 1856.

The Causes and Curative Treatment of Sterility, &c. By AUGUSTUS K. GARDNER, A.M. M.D., &c. New York: Dewitt & Davenport, 1856. (From the Publishers.)

General Notions of Chemistry. By J. PELONZE and E. FREMY. Translated from the French. Philadelphia: Lippincott, Grambo & Co.

A Treatise on the Practice of Surgery. By HENRY H. SMITH, M.D., Prof. of Surgery in the University of Pa. Illustrated. Philadelphia: J. B. Lippincott & Co., 1856. W. T. Berry & Co., Nashville, Tenn.

Transactions of the South Carolina Medical Association, at the extra meeting in Columbia, July, 1854, and at the annual meeting, Charleston, February, 1855.

Transactions of the South Carolina Medical Association, at the extra meeting in Greenwood, July, 1855, and at the annual meeting, Charleston, 1856. (From Dr. Happoldt.)

Transactions of the Twenty-seventh Annual Session of the Tennessee Medical Society, held in the city of Nashville, April, 1856. (From the society.)

Proceedings of the American Pharmaceutical Association, at the fifth annual meeting held in Baltimore, September, 1856. (From the society.)

The Therapeutical Powers and Properties of *Veratrum Viride*. By WESLEY C. NORWOOD, M.D., of Cokesbury, S.C. Second edition. New York, 1856. (From the author.)

On the new Red Sandstone Formation of Pennsylvania, and other papers. By ISAAC LEA, LL.D., &c., &c. Philadelphia. 1856. (From the author.)


Report of the Copper and Silver-Lead mine at Canton, Cherokee county, Ga. By CHARLES U. SHEPARD, M.D., Professor of Chemistry, etc. Second edition. New Haven. 1856. (From the author.)

Report of the Eastern Lunatic Asylum in the city of Williamsburg, Virginia, 1853-'54 and '55. (From the Institution.)

Thirteenth Annual Report of the State Lunatic Asylum at Utica, New York. (From the Institution.)

Address to the Phi Gamma Sigma Society of Strawberry Plains College. July, 1856. By the President, R. L. KIRKPATRICK, A.M. (From the author.)

Quarterly Summary of the Transactions of the College of Physicians of Philadelphia. Vol. ii., number 10, and vol. iii., numbers 1 and 2, for 1856. Philadelphia: J. B. Lippincott & Co.

 To complete our set of vol. ii., we lack numbers 1, 2, 4 and 6. Will the Publishers please supply them to us? These Transactions are very valuable, and physicians desiring them can procure them regularly as they are issued by remitting one dollar to J. B. Lippincott & Co., Publishers, Philadelphia.

A Paper on the effects of Lead on the Heart. By JOHN W. CARSON, M.D., Physician to New York Dispensary. New York. 1856. (From the author.)

Remarks on the Vesico-Vaginal Fistule, with an account of a new mode of suture and seven succesful operations. By N. BOZEMAN, M.D., of Montgomery, Ala. 1856. (From the author.)

Treatment of Displacements of the Uterus with the abdominal spring pessary. By J. F. M. GASTON, M.D., of Columbia, S. C. Charleston. 1856. (From the author.)

A Monograph on Epidemic Dysentry. By D. C. O'KEEFE, M.D., of Greensboro', Ga. (From the author.)

Elm Tents in the Dilatation of the Cervix Uteri. By HORATIO R. STORER, M.D., Physician to the Boston Lying-in Hospital. (From the author.)

THE FOLLOWING JOURNALS HAVE BEEN RECEIVED.

In the following list we have marked a few missing numbers, and in order to complete our files we hope they will be furnished us. *All exchanges should be sent to Knoxville, Tennessee.*

St. Louis Medical and Surgical Journal. (January, 1857, not received.)

American Journal of Medical Sciences. (January, 1855, not received.)

Medical News and Library. (September and November, 1856, not received.)

American Medical Gazette.

Atlanta Medical and Surgical Journal.

N. W. Medical and Surgical Journal.

Cincinnati Medical Observer. (Nos. 1, and 3, of vol. i., not received.)

American Journal of Insanity. (January, 1857, not received.)

Southern Medical and Surgical Journal. (Nos. 1, and 9, of vol. xi., not received.)

American Medical Monthly.

Peninsular Journal of Medicine.

Virginia Medical Journal. (February and April, 1856, not received.)

Western Lancet. (January, 1857, not received.)

Medical and Surgical Reporter. (No. 10, vol. vii., Nos. 3, 6, 7, 8, vol. viii., and Nos. 2, 6, 12, vol. ix., not received.)

New Hampshire Journal of Medicine. (January, 1857, not received.)

New York Journal of Medicine. (January, 1857, and January and March Nos., 1856, not received.)

Medical Independent. (Nos. 1, and 2, vol. i., not received.)

American Journal of Pharmacy. (July, 1856, not received.)

Charleston Medical Journal. (No. 3, vol. x., not received.)

North American Medico-Chirurgical Review.

Memphis Medical Recorder.

Braithwaite's Retrospect. Stringer & Townsend, New York.

ADVERTISEMENTS

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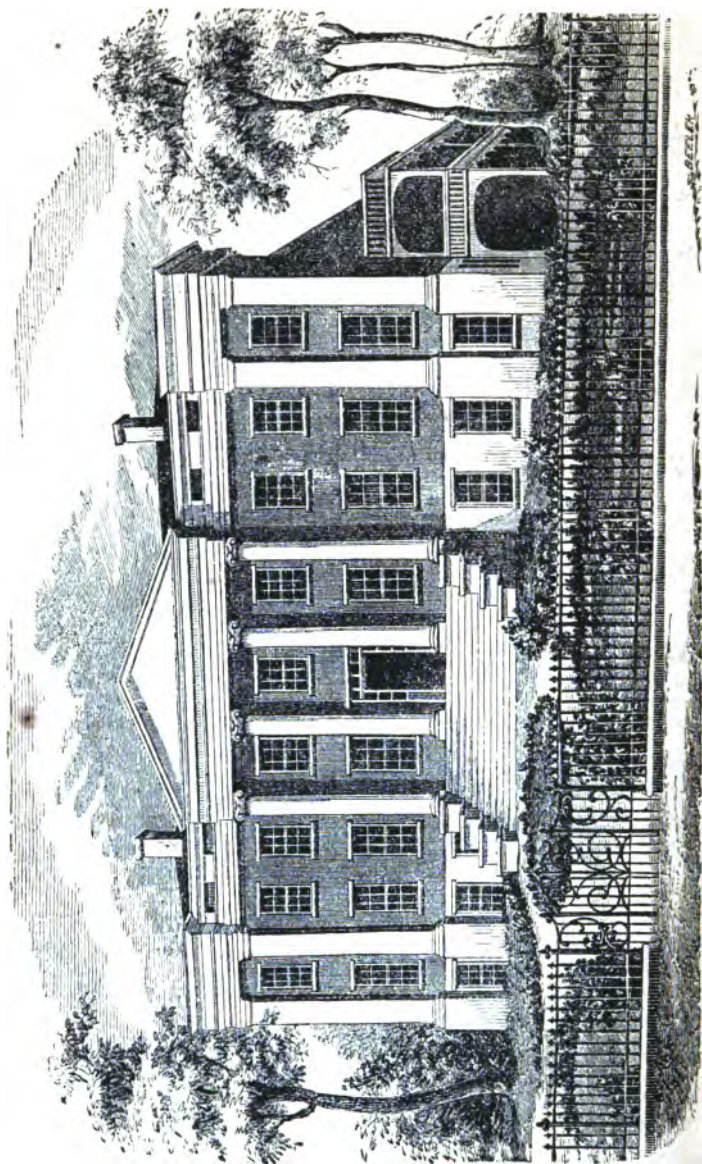
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TENNESSEE SCHOOL FOR DEAF AND DUMB, KNOXVILLE.

THE
SOUTHERN JOURNAL
OF THE
MEDICAL AND PHYSICAL SCIENCES.
MARCH, 1857.

PART I.
ORIGINAL MEMOIRS AND CASES.

ART. XX.—*Tennessee Institution for the Deaf and Dumb. History and Progress.*
By A. G. Scott, A.M., Principal.

The origin and subsequent history of this Institution, dating from the time it was chartered by the General Assembly of the State of Tennessee, during the session of 1843 and '44, to the present time, present some interesting incidents. When the Institution was chartered, there existed a strong feeling of rivalry between the Eastern and Middle Divisions of the State. A bill had been proposed by a member from Middle Tennessee, for the establishment of an Institution for the education of the Blind, to be located in Nashville; when Gen. Cocke, a prominent member from East Tennessee, immediately rose and proposed an amendment to the bill, providing for the establishment of an Institution for the education of the the Deaf and Dumb, to be located at Knoxville. Whereupon a member from the Middle Division, rose and pleasantly remarked that he believed if any member from his division of the State should propose a bill for

an appropriation of a pint of chestnuts for Middle Tennessee, that his friend, Gen. Cocke, would propose, as an amendment to the bill, an appropriation of a pint of goubber peas for East Tennessee.

The bill, with the amendment, however passed, with an appropriation of one thousand dollars, to the Institution for the Deaf and Dumb.

His excellency, the Governor, early in the summer of 1844, appointed three gentlemen of Knoxville: Rev. R. B. McMullen, D.D., Rev. D. R. McAnally and Joseph Estabrook, Esq., as Trustees.

This Board of Trustees at their first meeting organized by electing Rev. R. B. McMullen as President of the Board and Rev. D. R. McAnally as Secretary and Treasurer. They immediately entered into an investigation of the work before them, and opened a correspondence with similar Institutions in the United States, to obtain such information, as was necessary to successfully establish the school, and to obtain a suitable teacher. After much effort the Board, on the first of January, 1845, succeeded in securing the services of Rev. Thomas McIntire, as Principal, with a salary of nine hundred dollars; leaving one hundred dollars with which to defray all the other necessary expenses of procuring a suitable building, furnishing it, &c., &c.

The energetic Board of Trustees, however, perplexed by these unfavorable auspices, were not discouraged, but redoubled their exertions to establish the school. They succeeded in renting a small frame house situated in what is now East Knoxville, and also some books, slates, &c. Publication was then made that the school would open on the 14th of April. Circulars and letters were sent to different parts of the State for the purpose of obtaining scholars—the terms of admission being, that the pupils should pay for their board and tuition.

The 14th of April came but without a single pupil. The fact was, the parents of such pupils were generally in such indigent circumstances, that they were unable to bear even the small expense necessary for the board and tuition of their unfortunate children, although they expressed in most cases a strong desire to have them enter the school.

A few, however, were found who were bitterly opposed to all Institutions for the education of the deaf mute, believing that amongst strangers, their unfortunate condition would subject them to neglect and want, if not to cruelty upon the part of those who should have charge of them.

On one occasion the Principal visited a family in an adjoining county, in which he found several mute children. Having stated his mission and the parents expressing an unwillingness to allow their children to enter the school, he proceeded to press the matter upon them, when suddenly the mother becoming much excited ordered him from the house, and proceeding to the corner of the room, armed herself with the broomstick and threatened the use of it upon his back.

After waiting patiently until the middle of May, and still no pupil having arrived, the Trustees determined to pursue a different course, which was to furnish both board and tuition *free*, and to admit only a few upon these terms into the school.

Mr. McIntire, in his first report to the Board of Trustees, says: "Notice of this determination of the Trustees was accordingly given and in a few days, *six* applied for admission and were received into the Institution. These I began to instruct on the first Monday of last June. Shortly after this three others came, making in all *nine*, the number in attendance at the close of the session."

This was the first session and extended from the first of June to the first of September, just three months. At the close of this session the treasury was not only entirely destitute of funds but the Institution was in debt about four hundred dollars.

The necessity of a larger appropriation was urged upon the State Legislature, but without avail. The next session—that of 1845 and '46—there were only ten pupils in attendance. The condition of the Institution was such, that this session was not completed, as it was found that the small amount of funds left on hand after paying the salary of the Principal was wholly insufficient, and the school was accordingly closed on the 16th of February, 1846.

The Board of Trustees in their Biennial Reports to the Legis-

lature, urged upon that body the great necessity of their making an appropriation for the purpose of erecting suitable buildings for a State Institution. But no notice whatever was taken of these urgent appeals.

The Trustees being foiled in their efforts to obtain State aid for a State Institution, with that indefatigable energy and perseverance that characterized their efforts in behalf of this school, determined to appeal to the liberality and public spirited generosity of private citizens in East Tennessee and for this purpose sent agents over that portion of the State.

In *this* they were more successful, and the result was, that over five thousand dollars were obtained—three thousand and one hundred of this being subscribed by the citizens of Knoxville alone—for the purpose of erecting a building for the school. Accordingly during the following summer of 1846, the eastern wing of the present building was erected, with the necessary appurtenances, upon an eligible lot in the then vicinity of Knoxville—which lot was donated to the Institution by Calvin Morgan, Esq. The following fall, the third session—being that of 1846 and '47—the school was re-opened; Mr. McIntire continuing as Principal—being assisted by Mr. Charles Myres, a mute from Ohio. During this session there were thirteen pupils in attendance. The next session—that of 1847 and '48—the number of pupils was increased to nineteen. And by the close of the next session, that of 1848 and '49, the number had reached twenty-five.

During the summer of 1848, the foundation had been laid and part of the superstructure of the main front of the present buildings, was built with the remainder of the donated funds, and with monies borrowed. The estimated cost of this main front building was sixteen thousand dollars, and no better evidence of the strong interest taken in the success of the Institution on the part of the public, and of the untiring zeal of the Trustees, could be desired, than that such a costly building should be projected and partially erected, *when as yet, no aid, whatever, from the State had been received.* It was not until the session of 1849 and '50, that the Legislature made any special appropriation for the building, and even then the amount given—five thousand dollars—was not so much as one-third of the cost.

The Trustees, however, proceeded diligently to prosecute the work on to completion, with every available means in their power. It became necessary, in order to complete the work, again to suspend the school, which took place in February, 1850, and there were, during this part of a session—being the sixth session—twenty-seven pupils in attendance.

Rev. Mr. McIntire resigned his position as Principal of the Institution on the first of August, 1850, and the school was not again re-opened until October, 1851; when the chair of Principal was then filled by Mr. Oran W. Morris, an able and experienced instructor of the deaf and dumb, from the New York Institution.

Mr. George E. Bronson—a mute from the Ohio Institution—was elected, and became a teacher, in the fall of 1851. There were during this—the eighth session, that of 1851 and '52—thirty-one pupils connected with the Institution; and the next, or ninth session—that of 1852 and '53—there were thirty-four.

In November of 1852, the Trustees employed as a teacher Mr. H. S. Gillet of the Ohio Institution, an experienced and thorough instructor of the deaf and dumb. In April of the following year, that of 1853, the writer of this sketch was elected and became a teacher in the Institution. The school now numbered thirty-four pupils and four teachers. In the meantime the number of Trustees had been increased to thirteen. The present large and commodious buildings were by this time completed, with the necessary appurtenances for such an Institution.

Mr. Oran W. Morris, after having been connected with the Institution for two years, resigned his position as Principal, and Mr. H. Gillet was appointed Principal in his stead, which chair he continued to occupy until July, 1856.

During the session of 1853 and '54—being the tenth—there were forty-three pupils in attendance, and during the next, or eleventh session, that of 1854 and '55, there were fifty-seven pupils. In the spring of 1855, Mr. W. B. Sanders, a mute, and for five years previous a pupil in the Institution, was employed as a teacher in the Institution.

During the next, or eleventh session, that of 1855 and '56, there

were sixty-two pupils in attendance; and the present session, being the twelfth in order, up to this time number fifty-seven, with several applications for the admission of others. The prospect for a steady increase in numbers is very flattering, and the Institution, despite the difficulties which surrounded its establishment, and the continued embarrassments, which have attended its subsequent growth, bids fair to become worthy of being called a State Institution, of which Tennessee may justly feel proud. In a subsequent number we propose to speak of the number of mutes in the State—the prejudices which exist among the more illiterate classes, (to which class the larger portion of deaf mutes belong) against these schools—the capacity of the mute for mental culture, and for religious instruction, and will also offer some views as to the most feasible mode of dissipating the prejudices of the ignorant and of awakening a more general interest in the public mind in behalf of this benevolent cause.

KNOXVILLE, January, 1857.

ART. XXI.—*A Sketch of the Geology of Tennessee. Gold, Silver and Coa.* By RICHARD O. CURREY, M.D., Knoxville, Tenn.

GOLD.

The excitement of the last two or three years in the copper region succeeded only that which had previously existed in the search of Gold.

Citico and Coqua creeks—the two heading near together in the mountains of the Ocoee district, and yet the one running north and emptying into the Tennessee, while the other runs south to the Hiwassee, with the contiguous streams and mountains, were once supposed to be the land of Gold. But though the *nugget* and *lump* have as yet evaded the search of the laborious adventurer, yet frequently smaller particles have been picked off from the quartz rock, or panned out from the deposit of the

creek. It appears that originally, the search was made in the sands and washings of these two creeks; but in 1854 I found that the examinations had been carried along the streams to their heads, and diligent search was being made for the precious metal in the quartz rock and chlorite slate. I found several shafts sunk to various depths, and ravines opened so as to cross the gold vein by exposing the gold-bearing quartz. In Whippowill mine, after knocking off a portion of the quartz, I had the pleasure of picking several fine specimens of gold, and I regarded the indications favorable to the future explorer. The surface of the country is very rugged. Its geological character pertains to the primordial; its rocky strata consisting of a quartz rock, associated with chlorite slate of a greenish color, more or less intermingled with cubic crystals of sulphuret of iron. These quartzose and chlorite slates compose alternating series with red sandstone and mica slate. Preparations were being made to crush the quartz for the purpose of extracting the gold; but we do not know how far the company progressed.

SILVER.

Independent of the trace of silver ore to be found on analysis in the lead ores of Tennessee, the late Dr. Troost describes, in his Fifth Report, for 1834, two specimens of the sulphuret of silver, found by him in the waters of the Cumberland mountain. As these are the only specimens which have been found, no one having as yet succeeded in finding the source from whence they were washed, we will give his own account:

"I had the good fortune during my last excursion to make a discovery which may eventually be of great importance. Stopping for the night at the house of Capt. Eastland, on Clifty creek, on the Cumberland mountains, he handed me some small fragments of ore. As it

was night, and candle-light not being fit to discriminate minerals, I told him that I should examine it when I arrived at home; they were accordingly wrapped up in a paper and marked with his name. Next morning I left that place, and passing through Sparta, I descended to the Calf-killer creek to water my horse; my attention was there attracted by something uncommon among the gravel; I dismounted and took up the substance which had drawn my attention. Not being willing to remain longer amongst the dangerous miasmata which were rising at that time from this creek, and which had infected the whole town, I did not think it prudent to examine this place further. When at home, I examined both these ores, and found that the fragment of Capt. Eastland, as well as that found by me on the Calf-killer, was sulphuret of silver—that of Capt. Eastland containing also sulphuret of lead; that found on the Calf-killer was pure sulphuret of silver covering and penetrating crystalized fluete of lime.

"The sulphuret of silver is one of the richest of silver ores; when pure, it contains:

Silver	87
Sulphur	13
	<hr/> 100

"I am at a loss to make any conjectures as to the locality of this ore. The banks of the Calf-killer, which creek takes its origin in Cumberland mountains, only a few miles (perhaps twenty) to the north of Sparta, are mostly composed of oolitic limestone—of which mention is made in this report—and this limestone is covered here and there by the sandstone of the coal formation, and no vein of silver or fluete of lime can be expected to be found in it. It is the same with the oolitic limestone, which is the highest strata of our mountain limestone series, in which I never found any metallic vein, or other mineral substance; it must therefore belong to some older rocks. The only stratum, for as much as I know, in which fluete of lime is found, is in Smith county. Now the perpendicular height of the Calf-killer is much elevated above the place where the fluete of lime is found, which is not far from the Cumberland river, about 400 feet below Sparta. I do not know from whence Capt. E. obtained his specimen—as he told me it was about fifteen miles from his residence."

CHAPTER III.

COAL REGION OF TENNESSEE.

Passing by the consideration of any other mineral or ore peculiar to East Tennessee as well as its agricultural facilities for the present, I will next in order enter upon an examination of that portion of the Appalachian coal field lying within the limits of Tennessee.

No subject has caused greater solicitude to English capitalists, than the *possibility* that at no very distant day the coal fields of their island home would be exhausted. So rapidly has the consumption of this mineral increased for the last few years, both from the increase of population, and the extended application of steam, that many of the mines have already failed. Some of the most scientific geologists and intelligent miners were commissioned by Government to investigate this subject, and though they differed as to the probable length of time that it would require to completely exhaust the supply, they all agreed that it was an event which must sooner or later ensue. It is true that generations may pass away before it occurs; but like a wise government, there was an immediate prohibition put upon the destruction of the waste coal at the mouths of the pits, and a tax levied on its exportation. The result of such a catastrophe is more easily imagined than described. The thousands of busy hands now engaged with her looms, and spindles, and anvils, and rollers, as well as the millions of active capital employed in keeping them in motion, will be driven elsewhere ere such an event happens; and who cannot see, in the departure of these, the fading glory of the English kingdom, and the loss of her power. This is a striking illustration of the value of this single mineral. And while even the prospect of a failure strikes English hearts with terror, may we not anticipate a bright future from the developments of this mineral in our country. From Maine to Texas, there is scarcely a State that does not possess, to some extent, portions of a coal field; while in many it constitutes the principal formation.

In the Massachusetts and Rhode Island coal fields, there are estimated to be about 500 square miles. In

the Appalachian, extending from New York, through Pennsylvania into Ohio, through Virginia, Kentucky and Tennessee, and terminating near Tuscaloosa, Alabama, being 800 miles in length, with an average width of 180 miles, and covering an area of more than 100,000 square miles, there are contained, at a low estimate, one million of millions tons of bituminous coal. In the Ohio river coal field, we have another immense basin, embracing nearly the whole of Illinois, southern part of Indiana, and extending across the Ohio into Kentucky; the entire area being not less than 55,000 square miles. In Michigan, including about two-thirds of the State, another field has been explored, of 12,000 square miles. In Missouri and Iowa, is still another of 50,000; while Arkansas and Texas each contain important fields. So that, supposing these 250,000 square miles of coal deposits to have an average thickness of 50 feet, we have no less than *three and a-half millions of cubic miles* of coal in the Union.

Two classes of coal are found in our country—the bituminous and the *non-bituminous*, or anthracite. The latter class is found only to a limited extent; being the kind obtained in Eastern Pennsylvania, and is said to have been found in East Tennessee. Though these two classes possess striking marks of difference, yet they are to be referred to the same origin. The same fossil plants have been found in each; and as anthracite is coal without bitumen, there has been observed a gradual increase of this property towards the western limit of the Appalachian field. The anthracite has been debituminized by its contiguity to the primordial rocks, and to its having been subjected to a great pressure during its formation. It is similar to, and is, in fact, natural coke.

The Tennessee coal field, being part of the Appalachi-

an, is embraced within the limits of the counties of Claiborne, Anderson, Morgan, Scott, Fentress, Campbell, Overton, Grundy, Van Buren, White, Franklin, Bledsoe, Marion, Hamilton, and Rhea, composing the range of Cumberland mountains. These mountains are again subdivided, with local names attached.

The eastern base of these mountains, so far as I have ascertained, rest upon the inclined strata of East Tennessee—though in some places there intervenes a table-land of the silicious stratum and old red sandstone. As we cross the mountains, and in passing through the Sequatchee valley, we notice on its eastern side the inclined strata peculiar to East Tennessee; while across the Sequatchee river and on the western side, a hard, white limestone is found, lying horizontally and overlapping the other strata. This peculiarity is observable throughout this rich valley—being traced as far up as Crab Orchard. Here limestone ledges present a striking contrast with the general character of the surrounding country and may be regarded as a wise provision in the midst of these sandstones and sandy soils. This limestone possesses a peculiar structure—being composed of an infinite number of egg-like fossils; hence it has been termed *oolitic* limestone; but it possesses another fossil—the *pentremite*—in as great abundance, and it is also called the *pentremital limestone*.

This limestone is also well displayed all along the western declivity of the mountains, intervening between the shales and sandstones of the coal measures, and the old red sandstone or Devonian system below. Its absence on the eastern, and its unfailing presence on the western declivity, is a striking peculiarity. From this *pentremital* limestone to the summit of the mountains are included

the coal measures. They consist of strata of coal, shale, sandstone and conglomerates alternating with each other; there being sometimes from four to six of such series in one elevation, but of varying thicknesses. While on the western declivity of these mountains, the coal occupies almost uniformly a horizontal position, on the eastern the entire strata of coal, shale, sandstone, &c., appear to have been disturbed in some places, being tilted up into an inclined position, while in others no such action appears to have taken place, as they retain the horizontal position.

As this is a subject of interest to our citizens, I have made an analysis of several specimens of coal placed in my hands, giving, also, other analyses made at different places by other persons.

The following is the per centum of each specimen:

LOCALITY.	CARBON.	VOLATILE MATTER.	ASHES.
1. Pittsburg.....	55	38	7
2. Trade Water, Ohio river....	69,05	21	9,95
3. Rock Spring, Ky.....	80,56	10	9,44
4. Ohio river, near Caseyville..	69,58	19	11,47
5. Addison's br. Cum. mt.....	83,22	9	7,78
6. Anderson co., E. Tennessee..	82	10	7
7. Crow creek.....	77,70	14	8,30
8. Sewanee Mining Company...	79,56	14,21	6,25
9. Kimbrough's, Roane county.	71	17	12
10. Gillenwater's, Rhea county..	69	14	17
11. Alabama, Tuscaloosa.....	80,96	12,96	6

The analysis of No. 1 was obtained from Professor Johnson's Tables—Nos. 9 and 10 from Professor Troost's Reports, and No. 11 from Professor Tuomey's Report. No. 5 is the variety of coal brought to the Nashville market, and is of a compact structure, and possessing iridescent colors—No. 3 is from a new mine on Trade Water, Ky., 18 miles from the Ohio river.

Though it is known that the range of the Cumberland mountains belongs to the coal measures, yet so little has been done for its actual exploration, that it is impossible to say where, in particular, coal is to be found. So important an element is it to become in our State welfare, that it is highly necessary that a thorough examination of this field should be made, with accurate analysis, accompanied with a special map, and sections of the entire region.

In the table of analyses I have presented specimens from those localities which are most abundantly worked. There are many others opened for the supply of their immediate neighborhood.

In the *Raccoon* mountains, on the line of the Nashville & Chattanooga Railroad from whence it is obtained for transportation into Georgia, the coal is similar to that produced from the Sewanee mines—being soft and very readily crumbling into powder. It is admirably adapted for manufacturing purposes.

In the *Sequatchee valley* many valuable banks are opened, the coal from which is of a very superior quality. The construction of a branch railroad to the head of this valley would open to market one of the most productive valleys, as well in agriculture as in coal, to be found in the State. In the vicinity of Pikeville alone there are no less than six banks, all of excellent quality.

In *Walden's ridge*, which separates the Sequatchee from the Tennessee, coal seams are found extending from one declivity to the other; that on the eastern declivity affording the coal for the supply of the Chattanooga market.

The coal which is brought from Poplar creek and other localities in Anderson county, for clearness, purity and value, surpasses any coal that we have yet examined. In

many instances it is beautifully iridescent. It is this coal which is brought to the Knoxville market, a distance of sixteen miles by wagon, and by water a distance of about two hundred.

In *Cross mountain* and Elk river valley, the same valuable banks are found. To the west in *Morgan county*, there is an inexhaustible supply, only awaiting some facility for transportation to market, to render these excellent stock-raising lands as valuable for their mineral resources.

The opening of these banks, and the construction of railroads for its speedy and constant transmission to points, both East and West, would, in a few years, tell upon the industrial pursuits of our citizens. The construction of such a road as is contemplated in the Nashville and Knoxville Railroad, and especially if continued to the Mississippi river, would draw out from these rich store houses, treasures that would inspirit the loom and the anvil with new life, and accelerate the speed of the plough. The construction also of the Kentucky Railroad, necessarily passing through the rich coal and iron banks of Anderson, promises a bright future for the manufacturing interests of East Tennessee. This is a subject in which the whole State feels a deep interest, relating, as it does, to State aggrandizement and domestic comfort. Placed in juxtaposition with the iron and the copper, no one can fail to see what the results of their development would be. Not only would capital flow into the country, but population also; until the State would become the **Keystone of the South**, as Pennsylvania is of the North.

In these coal measures, good millstones can be obtained from the conglomerates, and gridstones from the sandstones; while the strata of reddish and of white clay would answer admirably for burning into fire brick and fire stones.

ART. XXII.—*Trial for Malpractice.* (Communicated for the *Southern Journal of Medical and Physical Sciences.*) *Supreme Judicial Court. October Term, 1856.*
NICHOLAS CLAPP versus JOSEPH W. WOOD. *Action for alleged Malpractice. Damages, \$1,000, and costs.*

For the Plaintiff—J. R. COCKE, and WELCKER & HUMES, Esqs.

For the Defendant—HORACE MAYNARD, Esq.

This case came up before the Supreme Court of Tennessee, upon a bill of exceptions from the Circuit Court of Knox county.

Being the first trial of the kind in this State, it possesses some interest to the medical profession at least. It was for an alleged malpractice in the treatment of fracture of one of the bones of the forearm and dislocation of the wrist. The trial was first set for hearing at the October court of 1854, before his Honor Judge ALEXANDER, but was laid over from time to time till October, 1855, when, after an examination of all the witnesses, a verdict was rendered by the jury against the defendant for \$1,000, and costs of suit. A motion was made for a new trial, which, being argued, the court refused to grant; whereupon the defendant appealed to the Supreme Court of Tennessee. From the Bill of Exceptions we gather the following testimony in the case.

TESTIMONY FOR PLAINTIFF.

JOHN GIBBS testified that on or about the 15th of July, 1854, he was at a meeting at Clapp's chapel, in Knox county, and intelligence came that plaintiff had fallen from a horse and broken his arm. This was about 5 o'clock, P.M. Plaintiff lived about one and a-half miles from the meeting house. Witness, after consulting plaintiff's father, Solomon Clapp, went for defendant to come to the relief of plaintiff. Found him at home and told him his errand. Defendant said he would go, but was a good while in getting ready to start. Witness went to plaintiff's house—several miles from defendant's—in advance of defendant. Found plaintiff in a good deal of pain. Started back for defendant; met him and went with him to plaintiff's house.

Plaintiff asked defendant if he had ever had such a case be-

fore; defendant replied that he could not tell until he had made an examination. After examining the arm, defendant directed some splints to be prepared. They were prepared accordingly by the father of the plaintiff, who brought them to defendant several times, and altered them according to the direction of defendant. (The splints were produced in court and shown to the jury.) Dr. Wood thence commenced attempting to reduce the fracture and dislocation. He told witness to take hold of the fingers of the injured arm, and a man by the name of James M. Roach to take hold of the arm of the elbow, and directed them how to pull. The bone of the left arm, on the same side as the thumb, was broken a few inches above the wrist joint, and the joint of the wrist dislocated.

The knot on the other bone protruded out very distinctly, and the hand much twisted out of its natural position. Witness and Roach, under the direction of defendant, commenced pulling—the one at the hand, and the other at the elbow; while the defendant worked with his fingers at the wrist and on the point of the fracture. Witness distinctly remembers the position of the arm while they were so engaged. The top of the hand was up and the palm down, the thumb pointing in towards the body.

While they were engaged in pulling, witness heard a sharp snapping sound. Defendant said it was all right now and commenced applying the splints and bandages. Witness observed that the hand and arm still appeared to be crooked and out of their natural position, and the knot on the bow of the arm on the same side with the little finger, protruded out considerably. Witness called Dr. Wood's attention there, asking him when he commenced applying the splints and the bandages if he did not mean to do something more, for the arm was not straight. He replied that it would come straight—that nature would bring it all right. He then proceeded to apply the splints and bandages. He first wrapped a strip of cloth on the arm, something higher up than the point of the fracture, and down to the wrist. This wrapped around about four times, and the splints placed on this. One on the top and the other on the bottom of the arm. One extending from the elbow to the ends of the fingers, the other to

the knuckles. The first was that which was placed along the palm of the hand. A strip of cloth was then wrapped over these, which held them to the arm. Witness noticed all the time that the top of the hand was up, the thumb towards the body. Plaintiff at the time was in a bed on the floor, propped up with a chair and pillows. A pillow was then placed on the bed, rather on his lap as it were, and his arm was placed on that by Dr. Wood, with the top of the hand still up, with the thumb towards the body. Wood (the defendant) said that Clapp would soon be easy, and would get a good night's rest. He directed that cold water be poured on the arm and that when the arm swelled, that the bandages should be loosened. There was some swelling at the time Wood was attempting to reduce the fracture and dislocation, and much more afterwards.

Witness remained at the house of the plaintiff, to sit up with him all night. About the time Wood left, or a little before, Dr. Crippen came. The individual who had gone for Dr. Buckley, not finding him at home, had brought Crippen. Crippen at that time did nothing at all. After Wood left, plaintiff appeared to be in great pain. His arm swelled rapidly. About two o'clock in the morning witness went for Dr. Crippen. He came, but did nothing but loosen the bandages and substitute strips of pasteboard for the wooden splints used by Dr. Wood. Witness assisted Dr. Crippen in doing this. It was done very carefully, and the position of the arm was not changed. At this time the arm was considerably swollen. Dr. Crippen died in a few weeks after this time. The father of plaintiff, while he and witness were making the splints, asked Dr. Wood if he had ever had such a case before. He answered that he had not in this country, but he had in the old country. Dr. Wood is a native of England. He is a practicing physician, and attends to all the cases he can get.

Cross examined.—Says that if the arm was bathed in warm water before the bandages were put on, he does not recollect it. Is pretty certain that Wood did not ask for flax or cotton to put under the bandages next to the skin. Did not say when he was examined as a witness on the trial of the suit brought by

defendant against plaintiff for his fee before Esquire Zachry, that when Wood put on the bandages, that the arm was straight.

(The plaintiff exhibited his injured arm. The dislocated wrist bone protruded. The fractured bone was not united and there was an indentation at the fracture, one piece of the bone inclining to the centre of the arm, the other to the skin; the hand was twisted in toward the body; the joint of the wrist was stiff; the whole arm was withered, not being half as large as the other.)

DAVID WALKER, a witness, deposes and says, that he was at the house of plaintiff, the evening the injury occurred. Found the defendant, Wood, there. Heard a snap and Dr. Wood said it was straight. Witness did not notice at that time whether it was straight or not. From his position, did not have a good opportunity of seeing. Witness noticed that while they were pulling at the arm, that the back of the hand was up, with the thumb pointing in toward the body. It was in this position when the bandages and splints were applied, and was left in that position by Dr. Wood. Dr. Wood told them when he left, that it must be kept in that position, and bathed in cold water; he also directed that if the arm should swell, that the bandages should be loosened. He stayed with the plaintiff and sat up all night. Plaintiff was restless and suffered very greatly. The arm swelled a good deal before Dr. Crippen came. Dr. Crippen came about two o'clock. He took off the board splints and substituted strips of pasteboard. The bandages had been loosened a little before he came as Dr. Wood had directed. It was done very carefully. Witness noticed when Dr. Crippen took off the outer bandage, that the arm looked crooked, that the hand was twisted, and that the knot on the bow of the left arm, on the same side with the little finger stuck out considerably. (Plaintiff offered to prove what Dr. Crippen said about the arm, and the reason he did not attempt to perform another operation, but the evidence was excluded as hearsay by the court.) Crippen did not change the position of the arm.

Cross examined.—Says that he heard a snap, and Dr. Wood said it was straight. Did not see it bathed before it was set, and if it was, it was done before witness got there. It was bathed

by pouring cold water on it after the bandages and splints were put on. There was something said about a sling, but I don't know what. I think it was put in a sling and rested upon a pillow on his lap with the top of the hand up.

Dr. JOHN J. MOORMAN, testified that he is, and for many years has been a physician. He examined the plaintiff's wrist and said if it had been injured as stated, by a fall from a horse, he had fallen upon the outer part of the hand. Had broken one of the bones of the forearm and dislocated the other at the wrist. The injury was a very serious one, requiring a good deal of care and attention. That the mode described by the witnesses pursued by the defendant in reducing the fracture, was the one ordinarily adopted, except that the back of the hand ought not to have been up during the operation, for that would make the bones of the arm, the radius and ulna, between the elbow and wrist, cross and twist over each other; whereas they ought to have been kept parallel. This fact, any one at all acquainted with the anatomy of the arm, ought to know. The splints were such as are generally used, though he would have prescribed a third one to be applied laterally; and in placing the arm after the operation, the palm should have been placed parallel with the body and not perpendicular to it with the thumb pointing inwards towards the body.

The defendant's counsel asked the witness whether, as a question of professional skill, the defendant having had but a single interview with the plaintiff, and being dismissed from the case within a few hours thereafter, with no opportunity to make any further operation, the defendant could be responsible for a failure to reduce the fracture and effect a cure?

To this inquiry, the plaintiff's counsel objected. The court sustained the objection to which plaintiff excepted. The defendant's counsel proposed to enter upon the enquiry with each of the professional witnesses introduced; but the court upon the objection of the plaintiff, overruled and excluded the testimony—stating that the question was one of legal liability, not for the witnesses to determine. Witness said the arm might have been reset, at any time, from ten to twenty days after the injury. He

would say ten days certainly, but this would depend on circumstances. The arm might become so swollen and tender in a few hours as to render it impossible to reset it. Witness further said, that if it was at all practicable to reduce the dislocation and fracture, with the back of the hand up as the witnesses described it, yet with the arm in that position, the difficulty of keeping the bones in place, would be greatly increased in consequence of the pressure and lever action, the bones would exercise mutually on each other; and the natural effect would be to throw the dislocated bone out of its place again, and to separate the fracture.

Dr. P. FATIO, a physician resident in Knoxville, testified substantially as Dr. Moorman, except as to the necessity of a third splint. He thought two splints entirely sufficient, and that a third would have been at least unnecessary, and perhaps in the way. Another surgeon might have again set the arm at any time within fifteen or twenty days after the failure of the first operation, the length of the time depending on the age, habits, strength and constitution, and the condition of the limb. Witness said when a fracture or dislocated limb was properly reduced, it was apt, and generally did give the patient ease, until the knitting commenced, in case of fracture, and the healing in case of dislocation.

TESTIMONY FOR DEFENDANT.

JAMES M. ROACH, a witness on part of the defendant, deposes, and says: that when he got to the house of the plaintiff, he found the plaintiff badly injured by a fall from a horse. Was directed by Dr. Wood to pull at the elbow while John Gibbs pulled by the fingers. Dr. Wood worked with his fingers at the wrist and where the arm was broken. Heard a snap, and Dr. Wood said it was straight. Witness did not notice it particularly, but supposing that Dr. Wood knew his business, thought it was straight. If the arm was bathed with warm water, before the splints were put on, witness does not recollect it. Witness recollects that when he and John Gibbs were pulling at the elbow and the hand, that the top of the hand was up and the palm down. It was bending in that position and left in it. The splints were brought

in two or three times before they were pronounced suitable by defendant. They appeared to fit the arm and to lie easily upon it. Dr. Crippen came several times. He took off what defendant had put on, and applied pasteboards. It was about sundown when defendant set the arm and about midnight when Dr. Crippen took off the bandages.

Cross examined.—Says that he thought the arm was straight for the above reasons. Is confident as to the position of the hand and arm. Thinks he left plaintiff's house a little before sundown. Did not go back again that night. Wood left about the time witness did.

SOLOMON CLAPP, father of plaintiff, testified that by his son's directions he told defendant that his services were no longer wanted, that during the night they had called in Dr. Crippen. This was the next morning. His son, the plaintiff, had so directed him. Witness said the pain increased from the time Dr. Wood left on all night, and this was the reason they sent for Crippen. And Dr. Wood told them when he was done setting it, that he would get easier after a while; but he did not get easier, but almost crazy with pain and was very much swollen when Crippen got there.

This was the material testimony in the case.

His Honor Judge ALEXANDER charged the jury as follows:

A man who holds himself out to the public as qualified and skilled in any particular profession, art or avocation, is responsible for the want of the necessary and proper knowledge, skill or science which his profession demands. A lawyer who follows his profession and solicits business, is required by law to have such an amount of legal knowledge and learning as will enable him to discharge with reasonable skill and learning and success, the several duties incumbent on him in his professional capacity. If wanting in such measure of knowledge and skill, and from such cause, injury and loss result to his client, he is bound to make compensation. In holding himself out to the public as a lawyer, he impliedly contracts with his clients that he possesses the necessary and proper knowledge pertaining to his profession and also that he will bestow all necessary care and diligence upon such business as may be entrusted to his professional management. So in the case of the physician and surgeon. He impliedly contracts with those who employ him, that he has such skill, science and information as will enable him properly and judiciously to perform the several duties of his calling. If he is wanting in such skill, science and information and by reason

thereof injures those who employ him in the line of his profession, then he is responsible for such injury or damage at the suit of the party so suffering from such malpractice. This is the general rule of law applicable to all professions, arts and mysteries. But it is to be observed that the law does not require every or any professional man to possess the *highest degree* of skill and science. It demands only such reasonable skill and science as will enable him prudently, discreetly and sensibly to discharge the usual duties of his profession.

In the case now submitted to your consideration, you will enquire from the proof whether the defendant exercised such reasonable skill, science and knowledge in setting and treating the plaintiff's limb, as I have already told you is required of the surgeon and physician. If he did, then the plaintiff cannot recover. But if the plaintiff was injured by reason of the defendant's want of care and skill, then the plaintiff can recover such an amount of damages as you may believe he is shown to have suffered. The success or failure of an operation is not conclusive of the possession of skill or the want of it. The surgeon, as other professional men contracts for reasonable care and skill and is responsible for ignorance and negligence from which serious injury and suffering result.

If the plaintiff has been seriously and permanently injured, but that injury did not result from the negligence or want of sufficient skill on the part of the defendant, then the plaintiff can not recover. If you shall believe from the proof in the case, that the injury was the result of the defendant's being discharged as the attending surgeon, and the negligence or want of skill in others, then the plaintiff cannot recover.

He is of course responsible only for his own conduct while he was allowed to treat the case, and not for any thing that took place subsequently.

The jury found for the plaintiff, and assessed damages one thousand dollars. Defendant obtained a rule for a new trial which was continued for consideration by the court. On the argument of the rule for new trial, defendant introduced his own affidavit which was in the following words, and made a part of the bill of exceptions.

The defendant made oath, that on the trial of this case he was surprised by the testimony of witnesses, touching the position of the plaintiff's arm and hand at the time the operation was performed, which is the subject matter of complaint in this suit. That he knew of no witness by whom he could prove what he avers to be the truth in that behalf. That the hand was left by him reclining easily upon a pillow, nearly parallel with the front part of the body. Since the trial he was informed, and heard

for the first time that Freeman Skaggs was present from a period shortly after affiant left the house of the plaintiff, until a late hour in the night and that he is able to state how the fact is. He has also been informed, and heard for the first time since the trial that said Skaggs knows that after affiant left the plaintiff, at the time of the operation the plaintiff moved both himself and his arm a great deal in various ways, and that said Skaggs loosened the bandage applied by affiant before the arrival of Dr. Crippen. All the testimony of the said Skaggs was unknown to affiant until since the trial, nor did affiant even know that he had been present, or had any information on the subject.

He introduced Freeman Skaggs, who testified that he was present at the time the plaintiff's arm was operated on by defendant. That after it was laid upon a pillow flat upon the body, the thumb inclining a little inward. That he is a stranger to defendant and presumes defendant knew nothing of his being in possession of any facts bearing on the case. He had been told since the trial, of some of the testimony on this subject and had taken occasion to state his own knowledge about it, from which he supposes defendant came in possession of the facts that are known by him, (the witness.)

He also introduced Drs. F. A. Ramsey, Wm. J. Baker and O. F. Hill, who testified that according to well settled principles of surgical practice, they were clearly of opinion that if Dr. Wood, after being called in to operate on the plaintiff's arm, another surgeon was called in a few hours, and the case given into his hands and Dr. Wood dismissed, unless Dr. Wood had displayed gross unskillfulness, that Dr. Wood could not be considered and held responsible for a failure to effect a cure. That if his operation had proven ineffectual, the arm might have been reset at any time from fifteen to thirty days afterwards, and instances have occurred in which it has been done from five to six weeks. That they would require the patient to undergo all risk and hazard. They also agree with other physicians that they would never attempt to reduce such an injury with the back of the hand up. The "radius and ulna bones" ought of course to be kept parallel, which could not be done with the back of the hand up.

The court discharged the rule and refused the new trial, whereupon the appeal was made to the Supreme Court.

On examination of the evidence contained in the bill of exceptions, the bench of the Supreme Judges affirmed the judgment of the lower court.

PART II.

MONTHLY MEDICAL RECORD.

ANATOMY AND PHYSIOLOGY.

1. *Anatomy of the Kidney*.—BUSCH, in a late paper, (*Vichow's Archiv.*, 1855) after alluding to the investigations of Goodsir and Muller regarding the formation of secretion in cells, which burst and allow its outflow, he especially mentions the discovery by Muller, of the formation of secretion vesicles containing clear fluid and uric acid salts in the interior of the cells, which grow and occupy the whole cell eventually, and finally the granules of salts are liberated into the excretory ducts. The snail is particularly referred to. Muller concluded that only the secretion vesicles were excluded, and new ones formed by the cells. The author had observed granules of uric acid salts also between the secretion vesicle and cell wall, and some cells also with these granules and no secretion vesicles. Hence the latter are not necessary for the filling of the cells with urinary precipitate. In almost all cases, the first amorphous granular urinary material forms before the vesicle, whose walls are formed out of the cell-contents round the partially precipitated urine. The author enters at length into the discussion regarding the chemical character of the urinary deposit, whether it be simple acid, or a salt, and what salt; and also regarding the proof that the urine is not brought to the kidneys as a salt, and soluble, but that the cells of the gland produce it by a chemical process out of the material brought to them. He goes on to speak of the different views of the relation between the Malpighian bodies and the urinary tubes, and determines, by his observation on snakes, that they are decidedly inclosed in a capsule, being the enlarged termination of the urinary canals. The snake has the Malpighian body quite at the termination, whilst the triton only has it in a wider part of the canal; and in the snake ciliated epithelium exists at the margin, uniting the body to the tube just as Bowman described in the frog. The chief part of the wall of the capsule is lined by

a polygonal epithelium, and on the free surface of the knot of vessels inside the capsule a distinct epithelium may be seen in fortunate cases, which in the embryo of the cellular matrix may occasionally be witnessed crossing bridge-like from one convolution of the vessels to another; but no connective tissue was visible between the cells and the vessels. The vessels seem to pierce the capsule, carrying a layer of epithelium before them. In general, the Malpighian vessels in the lower animals are merely windings of the same vessel, but in some, as in the viper, divisions and ramifications of the vessel existed. At least in the kidneys of snakes the ciliated epithelium is seen entering low down the tubes, provided that water is not used in the preparation. Each cell is seen, when the movement becomes slow, to have only one cilium, which moves about like a whip-lash. Ciliary movement could not be seen in the kidneys of birds.—*B. and F. Med. Chirurg. Rev.*, Oct., 1856, from *Virchow's Archiv.*, No. 5, 1855.

2. *Development of Joints.*—LUSCHKA from observation having determined that the pubic articulation was the lowest step in the formation of an articulation, conjectures that it might possibly represent a certain stage of development in other joints. Having found in the human and other foetus, that a fibrous substance enveloped the articulating cartilage, and moreover that, in the cartilage of the pubic joints, such a material was spread over its hyaline foundation, (*grund masse*) and afterwards that variously formed small microscopical projections were formed which, along with their substratum, passed into a fluid synovium; and that, finally, a cavity bounded by a smooth cartilage was produced, he thought that this might be the ordinary process of formation of all joints. He took for examination the union between the second and the seventh and intervening ribs, with the sternum, and also that between the manubrium and the body of the sternum. In the above-mentioned cases, the union in early life is often by a species of continuity, and effected by means of a fibrous substance instead of by a proper articulation, which becomes lost in the cartilage-mass covering the costal sinus in the edge of the sternum. When a small cavity exists, the cartilage of the rib and the sternum is covered with an extensive fibrillation, and exhibits on the surface turned towards the cavity, a very uneven appearance, owing to the projection of the fibre bundles undergoing destruction, the whole of the elements in the neighborhood of the cavity indicating a gradual and progressive process of dissolution. The substance covering the cartilage is not thoroughly

dissolved, as a rule, in the development of the sterno-costal joints, since in grown-up people, almost universally, at the rib-cartilage exists a layer, at one time homogeneous, at another time more striped, from which variously formed and leaf-like or branched projections are wont to grow into the cavity. That which, between the ends of the second and seventh, and included cartilages, and the sternum, exists as an exception—namely, the continuity by means of a fibrous substance—exists as a rule in the union between the body and the manubrium of the sternum. Here the union—unless it be, as it often is after the age of forty, bony—consists, almost without exception, of a fibrous substance joins both the disks, consisting of pure cartilage. The fibrillation proceeds from the mass of the disks, without any line of demarcation, and contains, besides a number of cartilage cells, a very large amount of firm elastic fibre. The fibrous mass generally, in the instance of the second rib, is united with the angle dividing the cartilage into two facettes. Only in very rare cases is there any cavity between the manubrium and the body of the sternum. One case (a child aged two years, and also two adults) showed this. In the former the cavity was of the size of a lentil, and in the latter, of a coffee-bean—the inner surface not being smooth, but beset with leaf-like and fibrous projections growing from the sides, and sometime almost filling the cavity. In these cases, the cavity is formed by liquidation of the originally solid connective substance, and thus the outgrowth of the remaining tissue take place in the form of processes. Similar attempts in the formation of a joint are to be seen in what are termed ‘false’ joints, where the connective material between broken fragments of bone, at first solid and fibrous, undergoes solution, and the formation of a thin capsule takes place; the synovia-like mass being seen to escape at times under operations. The lower-jaw articulation illustrates the normal maintenance of an earlier developmental stage. The thick elastic fibre-holding material overlaying the cartilage substance, generally has a number of fine projections, which, although mainly projecting into the cavity, yet is at times partly grown together with the tissue of the meniscus. Similar illustration are obtained in examining the connection of the ribs with the vertebræ. Over a layer of hyaline cartilage at the head of the rib, and corresponding tubercle of the rib, exists a layer of fibre substance, gradually springing from the substructure, and exhibiting in the layer nearest to it a peculiarly formed branching trabecular fibrous work, giving off forked fibres of various thickness, and finally terminating in pencil-like projections. Round spaces are thus inclosed by the mesh-work;

and in the trabecular fibres, as well as in the structureless areolar tissue filling the spaces here and there, cartilage cells and elastic fibres are visible. The fine fibres radiate into the connective tissue towards the surface of the cartilage, which contains only a few cartilage cells, but many elastic fibres. With exception of the above-mentioned joints—namely, of the ribs, the sterno-costal and maxillary joints—in adults and in the natural condition there exists over the cartilages, either no material differing from their own, or only one of extreme tenuity, and free from elementary forms. Quite different is it with the fœtus and newly-born. In these cases, over the cartilages there exists a substance, sometimes fibrous, sometimes homogeneous, or only slightly striped, which proceeds from the substructure so entirely without demarcation, that it may without hesitation be considered as belonging to it, and only resulting from the development of the joint. What chiefly appears, and one of the best instances exist in the joints of the toes in the newly-born, is the variously formed outgrowths from the surface, in great numbers. In the cartilage of the hip, knee, and shoulder-joints, and others also, they are more scanty. The most ordinary form is the foliaceous. Along with the single projections, bush-like and branching forms also exist, which, like the substance from which they grow, are at one time structureless or finely striped, at others fibrillated and twisted, behaving like ordinary areolar tissue under reagents. In some are to be seen elastic fibres and cartilage cells. Those cases showing only traces of the projections, are specially interesting as giving an insight into the formation of synovia by solution of the tissues and the smoothening of the cartilage in a complete joint.—*British and Foreign Medico-Chirurgical Review* from *Virchow's Archiv.*, No. 5, 1855.

PRACTICAL MEDICINE AND PATHOLOGY.

1. *On the Value of the Red Line of the Gum in the Diagnosis of Phthisis.*—By D. D. SAUNDERS, M.D., and JOHN C. DRAPER, M.D., Bellevue Hospital, N. Y.—Dr. Thompson, in his work on pulmonary consumption, in speaking of this red line says: "Considerable attention to this inquiry has impressed me with the conviction of the frequent existence, in consumptive subjects, of a mark at the reflected edge of the gums, usually deeper in color, than the adjoining surface, and producing a festooned appearance, by the accuracy with which it corresponds

with the curve of the gingival border; this mark is in some patients a mere streak, in others, a margin, sometimes more than a line in breadth. In the most decided cases, this margin is of a vermillion tint, inclining to lake. As a general rule, the line is most distinct round the incisor teeth, but it is frequently apparent also round the molars. I am not without a suspicion that the form of the mouth influences the direction in which the margin is most obvious; patients with a long upper lip applied closely over the jaw, often presenting around the incisors either no line, or one only slightly marked, while around the canine teeth this margin is well delineated. In toothless individuals, when the gums smoothly cover the sockets, no mark is observable, but when imperfect stumps remaining prevent the smooth adjustment of the surface, the streak is found."

The object of the following statistics, is to test the utility of the red line as an element in the diagnosis of phthisis. The four hundred and fifty-one cases, from which they were taken, are all of the patients at present under treatment in the wards of Bellevue Hospital. Table No. 1, is intended to show the frequency of its occurrence, without regard to the disease. The terms used at the head of the table, are *no line*, *slight*, *good*, and *excellent*. The first is used when no trace of a line exists; *slight* is used when the line is faintly marked on three or four gums; *good* is used when the line is pretty well marked on the gums of the upper jaw; *excellent* is used when the line is full, plain, and very marked on all of the gums.

The whole number of cases examined, (four hundred and fifty-one,) in whom the red line existed, is as follows:

TABLE NO. I.

No. of cases.	No line.	Slight.	Good.	Excellent.
451	106	96	175	74

Table No. 2 comprises one hundred and sixteen cases of phthisis, in all its stages. Under the head of stages, the numbers 1, 2, 3, are intended to denote the divisions commonly used in describing this disease.

TABLE NO. II.

Stages.	No. of cases.	No line.	Slight.	Good.	Excellent.
1	26	7	8	9	7
2	21	4	5	8	4
3	69	17	17	21	14
Total	116	28	25	38	25

From this we find one-fourth of the cases have no line, another fourth have it very slightly developed, leaving one-half in which it is plainly marked. It may also be observed that the stage in

which the disease exists, does not have any material influence on the line. Table No. 3 comprises all varieties of disease except phthisis.

TABLE NO. III.

No. of cases.	No line.	Slight.	Good.	Excellent.
325	78	71	187	49

In this table we find more than three-quarters of the cases have the line more or less developed, though only a little more than one-half have it well shown. This table would rather leave the impression, that this line occurs in most chronic diseases, as stated by Drs. Thompson and Frederick, oftener than in any other condition, though the following table conflicts with that opinion. Table No. 4 comprises thirty-seven cases of pregnant and recently delivered women, in whom no pathological lesion existed.

TABLE NO. IV.

No. of cases.	No line.	Slight.	Good.	Excellent.
37	5	6	11	15

In the thirty-seven cases, we see the line existing in thirty-two, though only slightly in six. The results of this table deserves some consideration, as it has been stated by most authors who have investigated the subject, that the line is peculiar to chronic blood diseases; this view, however, is not sustained by the above table, as no disease existed in any of the thirty-seven. It should be remarked, also, that the line occurs more frequently and is better marked in the pregnant woman than in any cases examined. The number of cases at our command will not justify a conclusion; yet they may serve as a basis of further investigation. The question might be asked—May not this line be considered in connection with the other symptoms of pregnancy?

Table No. 5 comprises thirty-two cases of uterine disease, and is intended to show the difference between the physiological and pathological conditions of the uterus.

TABLE NO. V.

No. of Cases.	No line.	Slight.	Good	Excellent.
32	14	7	10	1

In the thirty-two cases examined, there were nearly one-half where the line did not exist, and only one-third in whom it was pretty well marked. It may be observed that there is considerable difference between tables No. 4 and 5, the line occurring nearly in an increased ratio in the two conditions of the uterus, being only very well marked in a single instance when the organ is diseased.

Table No. 6 is intended to demonstrate the influence of sex on the line.

TABLE NO. VI.

	No. of cases.	No line.	Slight.	Good.	Excellent.
Female.....	234	57	55	80	42
Male.....	217	49	41	95	32

From this we see no marked difference in the frequency of its recurrence in the different sexes.

Table No. 7 shows the influence of age.

TABLE NO. VII.

Age.	No. of cases.	No line.	Slight.	Good.	Excellent.
below 20	48	21	9	10	8
20 to 30	185	38	37	80	30
30 to 60	199	42	44	78	35
above 60	19	5	6	7	1
Total	451	106	96	175	74

Age exerts no influence on the occurrence of the line.

The following general conclusions may be drawn from the above statistics.

1. The red line, though it occurs frequently in phthisis and chronic blood diseases, is by no means characteristic of them.

2. In pregnant and recently delivered women, the line occurs more frequently and better marked than in any cases examined, and may, perhaps, deserve consideration in connection with that condition.

3. That age or sex exercise no influence on the existence of the line.—*New York Journal of Medicine.*

2. *Remittent Fever of Children.*—By J. LEWIS SMITH, M.D.—Dr. Smith read a paper on the *Remittent Fever of Children*, of which the following is an abstract:—On the 2nd of September last, I was called to visit a boy, four or five years of age, who, during the past few days, had been dull and dejected, refusing, except perhaps in the morning, his play-things and his food. He was sitting by the fire, apparently unwilling to be disturbed, his eyes presenting a heavy appearance, pulse accelerated, a dry cough present, and after a careful examination, detecting no local disease, I pronounced the complaint remittent fever in its mild form. After ten or twelve days of expectant treatment these symptoms subsided, and convalescence occurred.

A sketch of this case has been presented, not because it is worthy, *per se*, of record, but to serve as an occasion for some remarks on the subject of infantile remittent fever. It is well known to medical men that the expression designating this disease, is applicable to a variety of pathological conditions, and that therefore, descriptions of it, contained in our standard works, are different, and, to a certain extent, contradictory.

Locock ascribes this form of fever to dietetic errors, and other causes of intestinal irritation. Butter, who published an able monograph on the subject, believes it an epidemic and contagious affection. The most eminent European writers on diseases of children, as Barthez, Rilliet, and West, describe as infantile remittent fever, a form of disease which they regard identical with continued fever of the adult.

In this country, the two authors on diseases of children, whose works are most extensively read—Drs. Stewart and Condie—the one almost, and the other entirely, ignore all forms of the complaint, except that symptomatic of intestinal derangement, irritation, or inflammation. Dr. Stewart remarks—"from an examination of the opinions of the various authors, compared with some amount of experience in the disease, remittent fever, appears, in general to be a symptomatic disorder, from derangement of the stomach and intestines, or of the appending viscera; or from an irritative action, at first excited in the mucous membrane of these parts."

Dr. Condie goes still further in his definition of infantile remittent fever, stating—"It is in fact, in every instance, either a gastro-enteritis, an ileitis, or an entero-colitis, accompanied by febrile re-action; and were it not that it is noticed as a distinct affection, in almost every work on the diseases of children, we should content ourselves with referring to the account already given of the inflammations of the digestive organs, for its pathology and treatment."

It has occurred to me to treat many cases of remitting fever in children, both in private and dispensary practice, and my experience has gradually led me to form an opinion of the pathology of the complaint, as it occurs in the upper wards of New York, materially different from the theories mentioned above.

It is not my purpose to describe the disease as it has fallen under my observation, except to say that it has presented all grades of severity, from the mild form, described at the beginning of this paper, to that severe grade in which delirium and an almost constant cough attended to the exacerbations. My object is simply to present some considerations, in reference to the nature of the disease and the proper treatment.

My observation of infantile remittent fever has been limited to the upper part of this island, a locality eminently malarious; and although the morbid conditions, mentioned by the authors cited above, will, no doubt produce fever of remitting type in the impressible child, the following facts convince me that the form of the complaint, which I am called to treat, is, in a large majority of cases, miasmatic:

1. The disease is very prevalent in spring and autumn, and rare in mid-summer and mid-winter, like malarious affections. There are certain streets where I have known it to prevail almost like an epidemic in the vernal and autumnal months. If the disease were, as Dr. Condie states, "in every instance, either a gastro-enteritis, an ileitis, or an entero-colitis," how can this influence of the season be explained?

2. Often, not always, the remissions are more marked than would be likely to occur in a symptomatic fever. The child may appear almost well in the morning, but in the afternoon and evening, exhibit such intensity of symptoms as to cause the greatest anxiety on the part of friends.

3. The symptoms are not altogether such as we should expect to find in a purely local affection. The patient will, it is true, when asked where he feels the pain, sometimes place his hand on the abdomen, and pressure upon the abdominal parietes not unfrequently produces great distress. Dr. Condie alludes to this tenderness, evidently believing it to be a symptom of inflammation. But I have always been satisfied that it was neuralgic, from the fact that pressure on the lumbar vertebræ, and frequently on the chest and limbs, caused as much suffering as when it was made on the abdominal walls. The patient, if old enough, will complain, too, of aching in the head, back, and limbs, which is more the symptom of an independent fever than of inflammation.

Again, constipation is ordinarily present, unless in the last stages of the disease. Intestinal irritation or inflammation, sufficient to cause so intense and protracted a fever as is often present, would be more likely to cause diarrhoea.

4. Children, even nursing infants, take intermittent fever; why, then, may they not take remittent fever, from malaria? In my class at the dispensary, children with these diseases are frequently brought in together.

5. I have found that measures directed to the alimentary canal, beyond simple purgation, do more harm than good. They fail to ameliorate symptoms; they weaken and distress the child. Moreover, when remissions occur, quinine will materially abridge the disease.

6. Death seldom occurs from this affection. In one or two fatal cases which have fallen under my observation this result followed convulsions and coma; and Dr. Stewart remarks, "dissections have furnished but little light on the morbid condition of the system in remittent fever; for, on a fatal termination, the transmission to the brain is the ordinary course of the disease."

The mode of death then and the post-mortem appearances, do not comport with the doctrine, that the intestines are the seat of morbid process.

Dr. Condie does not agree with Dr. Stewart, but attributes death to inflammation of the intestines. I do not think that the remittent fever which I have treated, if uncomplicated, ever terminates in this way, for I have never seen a case in which abdominal symptoms did not yield to simple measures.

7. Continued fever of the adult is of rare, and infantile remittent of frequent occurrence in the locality of my practice. The latter is not then identical with the former, as it appears to be in London and Paris, from the descriptions given by Rilliet, Barthez and West.

The above facts appear to me conclusive that the form of infantile remittent fever, which it has been my lot to treat, has been generally of a miasmatic character.

It is very important to understand the nature of this affection, as the treatment will vary according to the theory we adopt. It living in a malarious region, we embrace the Broussaian views of the American authors whom I have cited, and treat the fever as a local disease, we shall fail to ameliorate symptoms, and be mortified and discouraged by the result, if I may judge from my own experience. My reliance at present is mainly on expectant measures, till remissions occur, and then on the exhibition of quinine. In cases thus managed, convalescence has been more speedy and certain, than when opium, calomel and counter irritation have been employed to remove intestinal irritation, or inflammation.

At the risk of appearing presumptuous, I have thus presented a theory of infantile remittent fever not, indeed, novel, for Taylor attributes one variety of it to miasm, but different from that contained in any American and most European treatises on diseases of children. I am the more anxious that the true nature of the disease should be understood, because I believe that the accepted doctrine is exceedingly pernicious to practitioners in malarious regions, and especially to the younger members of the profession who rely more on books than experience for guidance. The fact, too, that remittent fever has been in my practice the most frequent affection of early life, in the vernal and autumnal seasons, gives additional interest to the subject.

8. *Albumen, Sugar and Pus in Urine.*—From an able address before the Worcester Medical Society by Dr. A. HITCH-

COCK, on *albumen, sugar and pus in urine*, we extract the following general outlines of treatment to be pursued. The existence of these conditions of the urine indicate diseases of the most serious nature. In *albuminaria* we have a *functional* disease, which, in its termination, manifests itself in throwing off "casts of tubes," which, according to Dr. Jones, of London, are fibrine and albumen effused from the blood and coagulated in uriniferous canals. They unerringly indicate Bright's Disease. *Diabetes* is indicated by the presence of sugar in the urine. This is eliminated from the circulation by the kidneys and thus thrown off. The liver is the producer of the sugar in health, which being thrown from the heart to the lungs is there utilized in the assimilating process. If, however, the respiratory function is defective, it passes on as sugar to the arterial system, and is eliminated from the system by the kidneys. That practice therefore which is directed to kidneys is erroneous. *Pus* in urine is attributable to a diseased condition of some part of the urinary apparatus.

Investigations into the diseased conditions of the urinary apparatus, and into the unhealthy characters of the secretions, led to great changes in the views originally entertained. Chemistry as applied to Pathology, has contributed to this more correct diagnosis.—[ED.]

He says: "The very *earliest stages* of the disease are the *Golden moments* for treatment. The practitioner should watch the known diathesis, and study carefully the exterior tokens of this inward malady, and try to forestall this powerful enemy before it becomes so firmly entrenched as to admit of any palliative treatment, with an almost certain prospect that the patient will finally succumb. It is true that chemical analysis is very important, nay indispensable to make out a diagnosis of these diseases; and while chemistry fails to point with certainty to the anatomical change that has taken place, the microscope comes in to his aid, and throws a flood of light on this important and interesting subject; and yet these important aids should not alone be trusted. Each case should be studied *as a whole*. Chemistry and the microscope, as aids to knowledge of kidney diseases, may take rank with the stethoscope in thoracic diseases. The history of each case, the general symptoms, the special circumstances,

will be equally important as diagnostic and therapeutic guides. Chemistry and the microscope show us the albumen, the "fibrinous casts," the sugar and the pus, but with these the *vital phenomena*,—the hereditary taint, and all the general and special facts of each case, should have due prominence in making a prognosis or in applying remedies. If the case of the disease is of a temporary character, the prognosis will be much more favorable than when it has its origin in a previous bad state of health, and the affection of the kidney is purely a product of the general dyscrasia. Of the latter class perfect recoveries are unquestionably very few. A want of this distinction has given rise to a wide discrepancy among practitioners in their prognosis and success in treatment. It will be obvious from the pathology which has been announced that we have no *specifics* for these diseases; indeed, from the pathology, the literature, and clinical evidence, the conclusion is irresistible that patients have generally been *too much drugged with medicine* in these diseases. It is unquestionably true that these diseases are more under the control of *regimen* than *drugs*. The cutaneous, the pulmonary and digestive functions should be carefully watched, and if possible raised to their normal state of action. The *mind* of the patient should *be at ease*. Such remedies only should be used as will allay nervous irritation and perfect the assimilation of the food. *Mercury* is *positively injurious* in these diseases, and ought to be avoided. *Alkalies*, either pure or combined with vegetable acids, are of some service. Albuminous drinks with sugar are useful in Bright's disease; for, according to Robin and Bernard, albumen is a "natural and adequate excitant to the liver." Some ancient works speak of raw eggs as a remedy, without, probably, a suspicion of this physiological reason for their good effect. As the presence of sugar in the liver and hepatic blood is a physiological condition, it should be our aim, not to *banish it from the system*, but to regulate and perfect that function by which its formation and conversion is accomplished. This is done chiefly in the lungs, and hence their function should be improved. A proper and agreeable amount of physical and mental exercise, good and well prepared food, pure air, and the inspiration of Hope, are all indispensable. In short, all those mental and physical hygienic conditions should be adopted that will tend to improve the general nutritive function. For this purpose Tonics are sometimes useful—Iron, Quinine, Porter, Wine and Cod-Liver Oil. In Diabetes a combination of Carbonate of Ammonia, Lime Water and Soda, has been used empirically with some success. Opium, in pretty large doses, and Creosote, have enjoyed

a doubtful reputation in Diabetes. Rennet has been given in teaspoonful doses three or four times daily, on the chemical theory of converting the sugar into lactic acid. Yeast has also been given, based on its chemical relations to sugar. Both these articles are safe and worthy of a fair trial. M. Robin has proposed inhalation of ozone, or *electrified oxygen*, as a remedy in these diseases, with a view to promote those processes of combustion, the failure of which is the chief cause of the morbid condition. M. Thenard long ago stated, confidently, that "animal diet was as decided a remedy for Diabetes as quinine for ague." This was his chemical *theory*; which in *practice* has been found only slightly to diminish the sugar and never to cure the disease. The Liver will make sugar from the blood, even though animal food only is taken; and the disease will continue so long as the combustion of hepatic sugar is not carried on normally and completely in the lungs. Prof. John Ware speaks in high terms of Hock and some of the weak Rhenish wines as valuable adjuvants in treating the atonic forms of albuminaria which follow scarlatina. They act as diuretics and diaphoretics. It is quite possible that the *acetate*, *malate* and *tartrate* of potash, peculiarly combined with the vinous principle in these wines may be the reason for their efficacy.

In these diseases, above all others, the practitioner should be cautious in his choice of medicines; and especially in those types characterized by organic changes, he should limit his patient to mild and soothing remedies, for the distressing symptoms *only*; and be very cautious and not hasten the danger by needless privations and useless and torturing remedies.

The intelligent co-operation of the patient, and his long-continued confidence, will be of especial value in treating these diseases. The treatment of *pus* in *urine* will be greatly modified by its *source* and *cause*. The vegetable astringents, the balsams and terebinthinate substances, the alkalies, and in some cases minute doses of mercury, or iodine, or cantharides may be found useful. If there is great irritability of the neck of the bladder it may be injected with nitrate of silver, 1 to 4 grains to the ounce of water.

A disease called *oxaluria*, characterized by the presence of *oxalic acid* or *oxalates* in the urine has been thought by some pathologists to depend on the same cause as the formation of sugar. But the preponderance of evidence is against this theory and the two diseases probably have no necessary relation. It has also been found that granular degeneration of the kidney is very seldom an accompaniment of oxaluria. The only explana-

tion that can now be given is that the disease is essentially one of depraved nutrition. Its approach is very slow and insidious; frequently after great and long-continued physical fatigue, or perplexing mental labor and anxiety. It is generally accompanied by irritability of the nervous system, with slow marasmus, and great tendency to *listlessness and mental depression*. This condition of the urine forms mulberry calculi—sometimes of the hemp seed variety—and always very insoluble. Drs. Prout and Bird have given us the best history of this form of kidney disease, but have left very much for other laborers to unfold and explain.—*New Hampshire Journal of Medicine*.

4. *Will it pay or not?*—Many, before engaging in various pursuits, ask themselves the foregoing question. It is upon the principle that a business that will not pay is not fit to be followed for a livelihood. The practice of medicine is too much regarded by the community as a charitable profession, and that it is therefore unbecoming in the physician to be urgent in his demands for the payment for his services. No other profession except that of Theology, is thus regarded. The lawyer demands his fee and is promptly paid, and yet he has only to employ himself in securing the interest of his client's estate; but he is paid—and that well—because he demands it. The tradesman of every character is paid, because the custom of traffic has so fixed it. But the Doctor often goes without his fee entirely; sometimes has to take the aid of the law—and in very few instances is paid cheerfully and promptly. Men are grateful enough when just recovering from sickness, but it costs nothing to speak three or four words of gratitude, and the deluded medical attendant consoles himself that so much gratitude will manifest itself in a more substantial manner, in a way to keep soul and body together, not merely to tickle the fancy.

We have been led to these reflections from a perusal of the following portions of an address by Dr. W. H. H. MASON, at Dartmouth college. We commend its suggestions to our readers.—
[Ed.]

I will now, gentlemen, call your attention to the financial part of your occupation. You have accepted this calling for a livelihood as well as duty. "He who will not provide for his house-

hold is worse than an infidel." You will have, or certainly should have, families to support and protect, and your duty to yourselves and to them calls loudly for a proper remuneration for your services. You are under no obligation to grant gratuitous labor, except where it is actually demanded by benevolence. There is a universal neglect among physicians in collecting their bills, and a neglect equally as great on the part of their patients to pay. This is not owing to a want of business talent in the physician, or a want of integrity in the patient, but naturally grows out of his occupation. He is looked upon more as a benefactor than a creditor. After watching with the utmost care and anxiety over a system that has just escaped destruction, he feels that his labors have been more strongly benevolent than hireling. The most of people feel under a religious obligation to pay him when convenient to themselves, without consulting his wants or urgency. But there is an annoying class who study to cheat him out of his fees. They are of that class who have small means and no soul to be grateful. If he is ever expected to start at beckoning, to face storms and tempests, when necessary and when not, it is from this class of customers.

The proper time for a physician to present his bill, is when he has made his last visit; it is then that his patient and friends fully appreciate the services rendered them,—not that he should at this time exact the payment unless convenient, but that they may know how much he is expecting of them at the earliest time practicable. A reasonable bill presented at this time is properly considered, but if delayed five or six years it becomes outrageous; while he is looked upon more as a devil than an angel of mercy. Yet we should remember that "the poor we have always with us," and should do them all the good in our power. The gratitude of these is sometimes a greater reward than the money of the wealthy. Boerhave has truly said, 'God is paymaster for the poor.'

Should you err so far as to inquire, mentally, "how shall I get practice?" it will be only human; and it would still be only human should you create a train of schemes by which to obtain it. Yet I would advise you to make no effort for patronage save what is founded in science, good sense and common courtesy. Any thing else is playing too much the empiric. You will think, and properly act accordingly, that *friendship* will not deceive you, that you may secure a troop of intimate friends upon whom you can always rely. If you try that rock you will split upon it. It is your duty to be friendly with all, but your profession demands it no more than all others; it is a duty of all. It is more your duty than policy. We are deceived and betrayed by our intimate friends: "intimacy begets contempt."

There is no occupation where the good old saying, "Be friendly with all, and intimate with few," will apply better than to ours.

You may think it policy to give your services to some to secure their influence, and that, too, when they are competent to pay. Such people will usually employ another physician when one is again needed. Gratuitous labor, inordinately cheap labor, and unasked advice, are usually despised. It is not our fault that such is the case. Society makes it such. Let society have the benefit of it. But this does not apply to the poor; yet *they* are only grateful according to the value they put upon our services, with the conviction that it would be demanded of them were they able to pay. All labor or service of any kind must have a price to insure success. Men have been educated to believe that that which costs nothing is worth just what it costs.—*New Hampshire Journal of Medicine*.

5. *Treatment of Scarlatina*.—CHAVASSE, a foreign writer, gives the following treatment of Scarlatina, which, although not suited, in its fullest extent, to the disease in this country, affords some valuable practicable hints:

The system I adopt, in a case of scarlet fever, is to keep the bed-room cool—I may say cold—and to have a thorough ventilation through it; I, therefore, throw open the windows, be it winter or summer, and have the curtains and valances of the bed removed. If it be winter time, I allow the patient to have one blanket and a sheet; if it be summer time, a sheet only to cover him. If the throat be not seriously affected, I merely order a narrow strip of flannel once round the throat. If the tonsils be much enlarged, I apply a bran and oatmeal poultice to the throat, changing it night and morning. I prescribe an acidulated infusion of roses, with an excess of acid, made palatable with an additional quantity of syrup, to be taken every three or four hours. This is the only medicine I give. Where the child is old enough, I find roasted apples mixed with raw sugar, very grateful to the patient.

Here let me pause, to advise my medical brethren always to make medicines for children pleasant. The administration of nauseous medicine to children oftentimes causes sickness, disgust and irritation, which frequently do more harm than the medicine does good.

But to return to our subject; I avoid purgatives in scarlet fever. I never, on any account whatever, give a particle of opening medicine for the first ten days at least. It is my firm con-

viction, that the administration of purgatives in scarlet fever is a fruitless source of dropsy, disease and death. When we take into consideration the sympathy that there is between the skin and mucous membranes, I think that we should pause before giving irritating medicines. The irritation of purgatives on the mucous membrane may cause the poison of the skin disease to be driven internally to the kidneys, throat, pericardium, or brain. You may say, do you not purge if the bowels be not opened for a week? I say emphatically, no!

Now with regard to food. If the infant be at the breast, keep him entirely to it. If he be weaned, and two years old, give him milk and water, and cold water to drink. If he be older, give him toast and water, and plain water from the pump, as much as he chooses; let it be quite cold—the colder the better. Weak black tea, or thin gruel, may be given, but caring little if he take nothing but cold water, unless he be an infant at the breast. Avoid broths and stimulants of every kind.

Now, you must warily watch for a change of temperature of the skin. As long as the skin is hot, the above plan I steadily follow; but the moment the skin of the patient becomes cool, which it will do probably in five or seven days, instantly close the windows, and immediately put more clothes on the bed. But still do not purge.

You will find the acidulated infusion of roses most grateful to the little patient; it will abate the fever; it will cleanse his tongue; it will clear his throat of mucus; it will, as soon as the fever is abated, give him an appetite. I believe, too, the acid treatment has some peculiar properties of neutralizing the scarlatina poison. I do not pretend to explain how, why, or wherefore.

When the appetite returns, you may consider the patient to be safe. The diet must now be gradually improved. Bread and butter, milk and water, and arrowroot, made with equal parts of milk and water, may be given for the first two or three days. Then a light batter, or rice pudding may be added; and, in a few days afterwards, a little chicken or mutton chop.

6. *Treatment of Diabetes*.—Dr. BELL, of Glasgow, closes his remarks on the treatment of Diabetes with the following summary:

1. Opium has a most powerful effect in diminishing the quantity of urine, but does not cure the disease.

2. Ammonia seems to possess, at least in some cases, the power of reducing the amount of urine, the specific gravity and quantity of sugar.

3. Opium and ammonia combined have a most beneficial effect.
4. Cod-liver oil is beneficial—it improves the general condition of the patient, reduces the quantity of urine, and lessens its specific gravity.
5. Cod-liver oil combined with opium, rapidly improves the strength of the patient and reduces the urine.
6. The combined use of cod-liver, opium and ammonia, effects the most prompt and permanent benefit.
7. Blisters to the hepatic region are useful.
8. The restriction of diet is rather baneful than beneficial. A mixed generous diet is the best.
9. In the present state of our knowledge, we can only expect to improve the general condition of the patient, restrain the waste of tissues, maintain the vigor and reduce the amount of urine. In this way we can mitigate the disease, and protract the life of the patient. We are bound to confess that we have no cure for diabetes. It is not the only disease which defies the efforts of our art. In many other affections we can only palliate suffering and prolong existence. These objects we can satisfactorily accomplish in diabetes, by the judicious use of cod-liver oil, opium and ammonia.

But it may be asked, how are we to explain the instances of reported cure that from time to time are published, ever and anon exciting our hope that an agent has been placed in our power by which we can secure an easy victory over the disease? My answer is two-fold: 1st. That such cases may have been of a mere temporary nature; a character under which diabetes is sometimes presented. 2nd. That in many of the published cures, an erroneous diagnosis may have been made in consequence of the use of Moore's or Trommer's tests, both of which are deceptive, a brown precipitate being produced by the presence of other organic matters as well as sugar. I would admit no case as genuine diabetes unless the yeast test had been employed. I do not speak from conjecture on this point; but from experience. Indeed, I fell into this very mistake some years ago, in consequence of this brown deposit. The fallacy was pointed out to me by the late Dr. McGregor. I have reason to suspect that many of the cases that have been published regarding the presence of sugar in the urine of old persons, especially when laboring under disease of the lungs, the deoxidation of the copper is effected by some other organic matter and not by sugar. I have often, in such cases been able to produce a brown sediment, but I have always failed to effect fermentation.

SURGERY.

1. *Gunshot Wounds*.—By J. MOSES, M.D., late Surgeon-General of the Nicaraguan Army.—Dr. Moses, in a communication to the *American Journal of the Medical Sciences* for January, details the surgery and operations following the battle of Rivas, Nicaragua, April, 1856. We present the following extracts:

“Of the forty-six cases of which I have notes, there are many of great interest to the military surgeon, showing the course of balls; the wonderful escape of large vessels and nerves; the extent of the reparative process, and how often the severest wounds get well, while the most trifling are the cause of sudden death.”

* * * * *

“From the earliest dressing, cold water was used universally by the officers of the staff who devoted themselves night and day to the care of the wounded, who were never left without one ready in case of accidental symptoms.”

* * * * *

“I have been opposed to the use of poultices as uncertain and offensive applications. To be of use, they should be at least half an inch thick, and changed every three hours. This is often wearisome to the patient; requires the movement of a limb or part which should be kept quiet, and produces an irritability and dread on the part of the patient. It is frequently impossible to prevent the bed from being soiled by the poultices slipping. All this may be avoided by water-dressings; if cold be most grateful, by a folded linen cloth dipped in water and laid loosely over the part, or kept moist and cool by a drip from a vessel suspended above; if warm be preferred, by covering the wet cloth with oil silk, it soon acquires the temperature of the part and becomes a light and elegant poultice. Various medicinal agents may be thus applied of a sedative or stimulating character.”

“This dressing is the more applicable in tropical regions, where it is desirable to keep the wounded cool and clean. The months of April and May, in Granada, are the warmest of the summer season, being at the end of the dry period. The climate of Granada is warm throughout the year; the nights pleasant enough for refreshing sleep.”

* * * * *

“It is from June to November that Nature adorns the land

with her garb of most luxuriant foliage; when the fields of corn and sugar-cane wave most gracefully in the breezes, laden with rich perfume from the orange and gorgeous flowering productions of the land. To enjoy nature in perfection, to realize our sweetest fancies, it is necessary to dwell in the tropics; where trees never know the age of the "sere and yellow leaf," and the fields ever retain their brilliant verdure; where cloudy skies and chilling winds are never felt; where a glowing sun, bright blue sky, and a luxuriant and varied foliage ever smile. Such is the climate of Nicaragua, varying in its different parts to suit the cooler fancies and more material tastes of business men. The city of Granada, on the border of the lake of Nicaragua, is the only unhealthy locality in the State, arising from the causes above related, but comparing favorably with most of our Southern cities; but it is not my intention, at present, to enter into a detail of the climatology and productions of the State.

"Gunshot wounds, so rarely presented to the surgeon in civil practice, afford the army surgeon a specialty of great interest, especially when occurring in numbers, where he himself is a witness of them, and has them under his special notice from the time of infliction to their termination in recovery or death. The miraculous relations of old writers as to effect of windage, spent balls, &c., has been long proved to be fabulous in many of their details, while the introduction of new and more destructive weapons offer a newer and more interesting field of observation, and a class of injuries rarely or never seen except after a battle.

"The introduction of the Miniè musket and rifle has created an almost entirely new class of gunshot wounds, remarkable for the distance at which they strike; the great destruction of soft parts; the complete comminution of the bones struck; the greater tendency to secondary hemorrhage, and greater urgency for amputations. Following such wounds is a greater amount of constitutional disturbance; higher degree of inflammatory action; more profuse purulent discharge, and a much more protracted period of recovery; calling on the surgeon for a more patient and devoted attention to his cases and the exercise of a careful and experienced judgment in his proceedings. This class hold an intermediate place between the ordinary wounds of small arms and those produced by artillery, and a full knowledge of both must guide the surgeon in the middle course.

"The weight of opinion among British and French Army Surgeons is in favor of immediate or primary operations in all cases requiring surgical interference; but regard must be had to the circumstances in each particular contingency; to the convenience

of place, and, to some extent, the anticipated result of the battle during which the wounds are inflicted; but this subject has been so ably discussed by those far more experienced and capable than myself, I do not offer even a concurring assent. Conservative surgery has taught us so much, however, during the last few years as to the power of saving whole limbs by the exsection of joints, that we may, under the most favorable circumstances, preserve for our patients important members which our teachers, not long since, would have condemned to the knife. To the records of the late European campaign, and the experience arising from so vast and instructive a school, we most respectfully look for our most instructive lessons.

“In a subsequent paper, I propose to give a short account of the topography and climatology of the State, and the prevailing diseases among strangers and the native population, and the influence of *tropical climates generally* upon Europeans. Long since, I had doubts of what is termed “acclimation;” but personal experience, confirmed by that of several highly intelligent medical men, has taught me that it is rare. Individuals may accommodate themselves to the habits of a people, and even enjoy a good degree of health; but, both physically and mentally, they degenerate.

“The active and exposed duties of the soldier, however, rapidly tell upon his effectiveness. I have seen troops in Texas, where military service has been severe, exercise on scouts and guard, under the influence of a tropical heat, actually wilt down, and for months remain feeble, pallid, and dejected. Such, too, has been the experience of the army surgeons in Florida. To keep troops for a series of years in such a climate, with the idea that they will become inured and insusceptible to its influences, is an egregious fallacy. The same remarks apply equally to females and children, inducing, among the first, obstinate forms of uterine and vaginal diseases; and, in the latter, convulsions, diseases of the stomach and bowels, and even paralytic affections.”

2. *The Écraseur Linéaire of Chassaignac*.—In the January number of the American Journal of Medical Sciences, appears a description of this new instrument for performing surgical operations. It is becoming so generally adopted, and especially enters so largely into French practice that we present full extracts for our readers.

The editor, Dr. Hays, says: “The *écraseur* of M. Chassaignac has excited much interest among the Parisian surgeons, some of

whom pronounce it to be the greatest improvement in surgery since the discovery of anæsthesia. It has also been recently used by several of the most prominent London surgeons, who seem to regard it with great favor.

The original instrument of M. Chassiagnac, manufactured by Mathieu, has been improved by Luer, and also by Charrière. The essential part of the instrument is a chain so arranged that it can be forcibly tightened around the part designed to be removed. In Mathieu's and Luer's instruments, this tightening is effected by means of a rack and pinion; in Charrière's by means of a screw. The objection to the two former instruments is that the chain passes through a tube which it is difficult to clean and keep dry, and it is not passed through very easily or fastened readily. They are also more complicated and more expensive than that of Charrière.

M. Charrière has also made other improvements in the instrument. He has combined the advantages of a straight and curved instrument by making several extremities screw on one handle. He has also so contrived it that chains of various sizes can be fitted to the same instrument. The chain attached to the curved extremity has also been made with a degree of curve in its links, so that, besides being more easily applied to a tumor in a deep passage, as the vagina or rectum, it adapts itself to the channel of the instrument much more easily than the straight chain can, and is less apt to be broken when drawn home. Finally, the mode of attaching the extremities of the chain is more simple, and as traction can, if necessary, be made on both ends at once, the power is much increased.

"The action of the *écraseur*," remarks Mr. T. Spencer Wells (Med. Times and Gaz., Oct. 11, 1856,) "though slower than that of the knife, is much more rapid than that of the ligature, and its action is direct; not indirect like the ligature, which only divides tissues by the process of gangrene it induces. The *écraseur* first condenses the tissues it acts on, and then divides them with extreme regularity. The wound does not appear at all bruised or torn. When it acts on an artery, it first divides the two internal coats, which are folded up in such a manner as to plug the vessel. The closure is assisted by the agglutination of the outer coats, before they are divided, and after separation has been effected, the closure is so perfect that the channel cannot be opened by blowing forcibly through it. Experiments have been made at the Veterinary School near Paris, and the carotids of sheep have been divided without loss of blood. There is nothing surprising in this, when we remember how seldom severe gunshot,

lacerated. or contused wounds bleed, that a limb may be torn off by machinery and no blood be lost ; and that *bites* are very rarely attended by hemorrhage. The lower animals have no occasion to apply a ligature upon the umbilical cord of their young ; they simply bite it through, and the action of the *écraseur* is much more like that of biting than of crushing."

Dr. Geo. H. Macleod, formerly surgeon to the Civil Hospital at Smyrna, and to the General Hospital in Camp before Sebastopol, in a recent paper (*Medical Times and Gaz.*, Nov. 29, 1856,) has given so interesting an account of M. Chassaignac's mode of procedure in the principal operations in which he employs the *écraseur*, with the results he has himself observed in a tolerably extended experience in its use, that we are induced to quote what he says on the subject :

" It may be said generally that the chief aim of the *écraseur* is to supplant the ligature ; and that it fulfills all the objects aimed at by the ligature in a more rapid and satisfactory manner constitutes its claims to the attention of the profession. Its latitude of action, too, it will be seen, is much greater than that of any ligature we possess. A comparison of it with the ligature may be stated, thus : In obviating hemorrhage it at least stands on an equality with the ligature, as it is found so 'hermetically and solidly' to close the vessels before dividing them, by an action on their coats similar to that of the ligature, that, though I have repeatedly seen the most vascular growths removed by it, I have never, except in one solitary case, seen a drop of hemorrhage. As to the speed of action, it is greatly preferable to the ligature, which has to ulcerate its way through a tumor by a process slow and tedious enough, its very slowness being essential to its success. Further, the ligature requires, in general, tightening, causes great pain and irritation, and leaves a large suppurating surface. The *écraseur*, on the contrary, so compresses the parts, that the resulting raw surface is of very limited dimensions. It enables us to administer chloroform during the whole proceeding, and thus to obviate pain ; and, finally, it puts in our power an amount of force unknown in any ligature we possess. In the case of nervous persons or young children, the speed with which it acts, in comparison with the ligature, holds out many advantages. In a word, it in a great measure combines the benefits of the knife and the ligature. In its results, too, the *écraseur* contrasts advantageously with the ligature. Without claiming for it the advantages of causing greatly less subsequent inflammation and suppuration of never being followed by erysipelas, or hospital gangrene, or tetanus, or purulent absorption, as is energetically declared by Chassaignac, still I must honestly confess that the disturbance caused by it has been in general very slight, and the disagreeable results few, in the cases I have had an opportunity of observing. The mode in which the vessels are closed may well be considered to form a barrier to purulent absorption.

"The essential step necessary in using the *écrasier* is, obviously, to form a peduncle, if the part to be removed do not already present one. This is accomplished in various ways, according to the nature of the part. If, as in tumors on the surface, the part to be removed is flat, the best mode of procedure is to raise it up, if possible, from the subjacent tissues, and so to draw it out that several long curved needles can be passed in different directions across and under its base. A ligature is then tied behind these, and a neck thus formed for the chain. This method is preferable to transfixing the base of the tumor with a double thread, and pedunculating each lateral half. The great point is to get well below the base of the tumor.

"Again, if the mass be very large, or if it be so bound to the underlying tissues as that it cannot be raised up, or if it extend into a canal, as into the rectum, then the chain is first carried under the part in one of its diameters, and made to split it in two to its utmost depth, when each lateral part is treated as separate tumors, needles passed under it, a peduncle formed by means of a ligature and a chain made to surround each. In a word, a peduncle is to be formed in the sound parts, beyond the disease on which the chain of the instrument can be made to operate. The ligature employed should be a hard compact one, as it is least apt to get entangled in the chain, and as few turns as possible of it should be used. When the chain is firmly in place, it may be as well to cut away the thread, to obviate all fear of inconvenience.

"As the skin presents by far the greatest resistance—a resistance which, at times, is too much for the chain to overcome, its division by the knife, on the line occupied by the chain, will often be advantageous. As this incision will be but superficial, no fear of hemorrhage need be entertained. The skin may at other times be reflected from the sides of the tumor, which will serve the double end of saving integument, when such is desirable, and enabling the chain to get better below the base. Oiling the chain previous to use makes a considerable difference in its facility of action.

"One word as to the mode of passing the chain through and beneath a part. A long and very curved trocar and canula, of a calibre greater than the chain, is made to pass below the part to be split. The trocar being withdrawn, a small elastic bougie, having the chain attached to it, is made to traverse the canula, which is then removed. In this way the chain is conveyed across and under the part. If the base of the tumor be so narrow and deep that a trocar could not traverse it without including much of the sound tissues on either side, then one trocar and canula of large dimensions is introduced from one side, and a lesser from the other, in such a way that the point of the smaller may become inclosed in the larger, and thus a canal of any acuteness may be formed for the passage of the chain.

"In the use of the *écraseur*, it is essential to proceed with slowness and great gentleness. The holding of the instrument firmly, so that it will not shake much during use is a matter of much moment to the avoidance of hemorrhage. Though in many operations it will be suffi-

cient to allow half or even a quarter of a minute to elapse between each movement, yet to avoid all fear of hemorrhage in the case of very vascular growths, it is well to give a minute to each link. This apparent slowness, and the absence of that 'dash' so much coveted in the surgery of this country, and which this slowness prevents, is one reason why I believe the *écraseur* will not make so much way as it otherwise might in England.

"Let me glance at the mode of using the *écraseur* in particular operations.

"The great vascularity of the tongue, and the difficulty of suppressing bleeding from it when it is extirpated, presented an obvious case for the *écraseur*, and certainly in such instances it possesses several advantages over the ligature, which is the only mode of operation which in such cases, can be said to compete with it. While the ligature takes days, the *écraseur* accomplishes the end in a few minutes. It needs no reapplication; it does not cause the presence in the mouth of a putrid mass for days, which, notwithstanding every precaution, will continually mix its products of decomposition with the food. It enables us to give chloroform, and thus obviate that intolerable pain which accompanies the ligature, and which is so severe as to have caused some to premise the section of the nerve.

"If the whole organ is to be excised, two instruments are required. The chain of one is introduced into the mouth by means of a needle passed through an incision below the chin in the same way as Cloquet applies ligatures for accomplishing the same end. The root of the tongue is thus encircled, and cut from above downwards. The second chain introduced by the mouth is laid in the incision made by the first across the base, and is made to divide all the attachments of the organ from behind forward. Half an hour is sufficient to accomplish this operation. Half of the tongue may be removed by passing two chains through the tongue at the angle of union of the diseased with the healthy parts, and making one chain sever the parts from behind forwards, while the second cuts its way out at right angles to the first. A smaller part may be pedunculated by passing a couple of needles through the tissues behind it, tying a ligature round so as to form a neck and applying the chain. A small chain and the curved instrument answer best for these operations. The case referred to by Mr. Wells as having been followed by hemorrhage, I saw, with him, and am convinced the result arose from the cause given, viz., the sudden jerk of the patient's head. If chloroform had been used this could not have occurred. I have reason to think that the attendant exaggerated the frequency of subsequent bleeding in these cases. The result in the case above referred to was ultimately most satisfactory.

"Castration can be accomplished by the *écraseur* in two ways. The diseased gland may be drawn out from its fellow; a ligature applied above it, so as to constrict the tissues, and by means of the chain the whole removed *en masse*. Or, if the part is voluminous, two chains are passed through a canula behind the cord, and vessels at the point

of section, and while one is made to divide the cord, vessels, and skin transversely, the other performs the perpendicular section by which the testicle is divided from its fellow. The loss of integument is apparently an objection to this procedure, but the results on this head were ultimately very satisfactory in the cases I have had the means of observing. There was not a drop of hemorrhage, and I did not learn that any of the subsequent nervous symptoms which follow the use of the knife showed themselves, notwithstanding that we might naturally suppose them more apt to follow. In this operation we must, on the whole, prefer the knife, from its greater rapidity, and the fact that, if properly used, none of those results against which the *écraseur* is supposed to provide, need be feared. If the *écraseur bé* employed, a very long chain, and one of some strength is required to perform the vertical section, and if desired, the skin may be reflected to any desired extent before its application.

"I have seen circumcision performed on several occasions by means of the *écraseur*, but cannot see the object of its employment in such cases, as the knife accomplishes the object much better and more expeditiously. The hemorrhage, in no case of this sort, is an object worth taking so much pains to avoid. It is easily performed by separating the prepuce from the gland, either by drawing it forwards, and transfixing it with a double thread, whereby to form a peduncle, or, if practicable, introducing within the orifice a pair of forceps, between whose points and the glans the thread, and finally, the chain, is placed. Adhesions between the prepuce and the glans will prevent the use of the *écraseur*, and the laxness of the tissues make them very apt to get drawn into the canal of the instrument when the chain works home.

"Amputation of the penis is readily accomplished by means of the 'metallic ligature.' An elastic catheter being introduced into the canal, a needle is made to transfix both, a thread is tied behind the needle, and the chain made to divide the whole. The presence of the catheter prevents that obliteration of the canal which might result from the strong constriction exercised by the chain, while the integuments and mucous membrane lining the passage are so approximated by the action of the instrument, that hardly any wound results. Thus, then, there is no hemorrhage; the vessels are so closed that purulent absorption is obviated, and the wound may be said to be healed by the action which caused it. The difficulty of seizing a vessel in the stump of an amputated penis is well known to be, at times, very considerable, and this difficulty does not exist in the operation by the *écraseur*.

"The radical cure of varicocele is performed by Chassaignac as follows: The cord and veins being carefully separated, and the former drawn towards the middle line, three needles are made to transfix the parts between the cord and vessels, each needle being at a little distance from the other, and in a line with the axis of the vessels. Care must be taken that the needle lowest down does not transfix the tunica vaginalis. A ligature is placed firmly round the needle nearest the ring, so as to arrest the blood in the veins, and another ligature is

twisted round behind the needles, so as to include them all, and form a peduncle. Thus far the patient should be kept in the erect posture, so as to render the vessels full; he is now made to lie down, and chloroform being administered, the chain is applied behind the needles, and made to remove the knuckle included in the ligature. About half an inch of the veins is thus removed, and the resulting wound is brought together by suture. This operation takes from fifteen to twenty minutes. The rapidity and certainty of the result are the only advantages which this operation may be said to possess over the ordinary ones, while the extent of the wound is a disadvantage. I have not seen either hemorrhage, or erysipelas, or swelled testicle, nor yet troublesome erections, follow this operation when performed by the *écraseur*.

"The removal of piles is performed with wonderful facility by the *écraseur*. The tumor is seized by a *vulsellum*, and drawn out, when, if small, a ligature is simply thrown round its base, and the chain applied; or, if larger, a double thread is carried through its base, and tied so as to constrict it in two halves; or a needle may be left transfixing the base, and a ligature applied behind it. In many cases the points of the fingers will be sufficient to constrict the neck. Half a minute at least should be allowed between each movement, and ten or twelve consumed in the removal. When the anus is entirely surrounded by vascular piles, Chassaignac removes the whole at one grasp, by introducing a pair of his diverging forceps within the orifice, drawing it well out, and applying a ligature, so as to pedunculate the part, and then using the chain. A bougie must in this case be introduced within twenty-four hours, and that with great gentleness, to prevent tearing, so as to insure the patency of the gut, which is apt to be obliterated by the strong compression of the chain. The bowels should be kept quiet by opium for twenty-four hours. I have never seen any hemorrhage occur in the pretty numerous cases in which I have seen the *écraseur* employed; and I have seen a woman advanced in pregnancy thus with perfect safety relieved from large hemorrhoidal growths. The slowness and extreme pain and irritation, which are inseparable from the use of both the ligature and caustic, contrast disadvantageously with the operation with the *écraseur*, and the subsequent irritation of the bladder also appears much less when the chain is used. The very unfavorable state of the patient, the rapidity of the operation, and the bowels not being kept quiet afterwards, appear to me the causes of the fatal result reported in Liverpool. The bowels, in general, act with very little irritation, in thirty-six hours. In over a hundred cases, many of them of great severity, operated on in Paris, only one fatal result has followed, and in that instance from the breaking of the chain the essential feature in the operation, as preventing purulent absorption—the cause of death—was wanting, viz., the closure of the vessels before their division. By means of the *écraseur* strangulated piles can be at once removed, and Chassaignac does not find a state of inflammation any counter-indication. Several patients operated on at the

Lariboisière have returned to their work in three days; and in one case in which I saw an enormous hemorrhoidal tumor removed, no trace even of its site could be discovered a week after.

"I have never seen the *écraseur* used in prolapsus of the rectum.

"I have seen the lower part of the rectum removed for malignant disease twice, and in neither case was there any hemorrhage. It was performed thus: A long and much-curved trocar and canula was made to pass from the perineum, at a point anterior to the anus and external to the disease, up beyond the parts implicated in the gut, and outwards towards the coccyx posterior to the diseased tissues. The trocar being then withdrawn, the chain was passed along the canula and made to split the diseased mass in two after the tube was withdrawn. Long needles were then made to transfix the base of each lateral half, a ligature tied beyond them, and by means of two *écraseurs* worked simultaneously, both halves were removed at once. When we weigh the difficulties attending all operations of this kind, the great vascularity of the morbid parts, and the difficulty of commanding hemorrhage when it does occur, we must think favorably of the *écraseur* in such operations if they are to be performed at all. In three cases of extensive disease in which I have known the *écraseur* employed, one died of peritonitis, one has been well for eighteen months, and the third has also completely recovered.

"For the removal of polypi of the uterus or rectum the *écraseur* answers well. The curved instrument and chain suits best. A very small chain, perhaps a wire, employed in the same way, will be found most convenient. The chain may either be introduced projecting in the form of a loop from the end of the instrument, or carried round the tumor before being attached. The inflammation and pain which follow the use of the ligature in these cases, and the presence for days of a strangulated and dead mass in the cavity are all avoided by the *écraseur*, while the hemorrhage, so troublesome, and even, at times, fatal, which may result from excision, is obviated. The method mentioned by Mr. Wells, at the Medico-Chirurgical Society, of tying the base of the polypus before excision, is, perhaps, better than even the *écraseur*. The weak state to which many patients are reduced before operation makes the avoidance of hemorrhage very desirable.

"I have not seen the os uteri excised by the *écraseur*, but having lately seen the operation done by scissors, I can appreciate its performance without hemorrhage. There was one patient at the Lariboisière who had been successfully operated on by the chain two and a half years before.

"Vesicular, erectile, and fungous tumors on the surface, on the labia and neighborhood of the rectum, *nævi*, &c., are easily removed by the metallic ligature. The great point to be attended to is to raise them well up from the underlying structures to pass needles clear of them and under their base, to isolate them by a ligature, and to work the chain very slowly. The integument may be reflected from their side, both to save it and allow the chain to get well below them. Their

extent, too, is thus better defined. The *écraseur* is not adapted for the removal of the *mammæ*. Hemorrhage can be here easily commanded, and when the skin is reflected, the operation is nearly accomplished.

"It seems absurd to lay open fistula in ano by the chain, but in those cases in which the external orifice is at a great distance from the anus, and we wish the track to heal by granulation, I have seen it advantageously employed.

"I have seen the chain used for the destruction of the intestinal valve in false anus, and its speedy result, together with the absence of any gangrenous action, which is so difficult to limit, and which attends Dupuytren's forceps, gives the *écraseur* certain advantages. An elastic tube is introduced through the parts some days before in such cases, so as to make a passage for the chain.

"In concluding these detached remarks, I would add that, whatever opinion may be formed of the *écraseur*, the absence of hemorrhage, which attends its use, is a fact which cannot be overlooked, and one which we may turn to good account. We may not in every case have the same fear of blood, expressed by M. Chassaignac; yet, it is very true that, independently of the harm its loss may cause in young children and weak persons, the power of avoiding it, and the incidental "cutting," which is the chief fear of a nervous patient, will often enable us to persuade persons to submit to necessary operations, who, if otherwise prevailed upon, might be seriously prejudiced by the mental alarm. I am, as much as any one, opposed to all 'unnecessary complications' in surgery, and particularly to any tendency to that mechanical surgery so rampant across the channel; but, though the boast of English surgery is that it accomplishes all operative interference with the forceps and scalpel, yet we may, in striving for simplicity, throw away an obvious advantage. To propose the performance of lithotomy or amputation with the *écraseur* is simply absurd; but I am convinced that, if restricted to its own sphere, and employed for those purposes to which it may legitimately be applied, the *écraseur* is a most useful addition to our armamentarium. For many purposes, I know of no means which can be thought to equal it, except the galvanic wire, which I had the pleasure of seeing in the hands of Professor Middle-dorff, of Breslau, adapted to the uses of surgery in such a way that, if it can be so brought into general use, it must supercede, in most cases, every other contrivance. That the *écraseur* will ever supplant the knife in most of the cases for which it has been proposed, I do not believe, but that it may in some I sincerely hope."

MIDWIFERY.

1. *Infantile Dentition*.—In our preceding communication on

Infantile Dentition, we directed attention to the minor ailments during teething, and remarked that careful hygienic management was the only means necessary to bring such cases to a successful termination. We shall now proceed to the consideration of the pathology and treatment of the severer and more dangerous disorders that frequently supervene, during the eruption of the temporary teeth, and which, with the exception of contagious and epidemic maladies, comprise the greater part of the disease of infantile life.

The symptoms of morbid dentition are referable to inflammation or induration of the gums, and to the various sympathetic and constitutional disorders which originate in these sources of local irritation. When the gums are inflamed, they become hot, dry, and injected, and so exquisitely tender that the infant often refuses to seize the nipple. General symptoms are superadded, and are marked by heat of skin, quick pulse, vitiated excretions, hurried respiration, and disturbed sleep. The secretion of saliva is sometimes abundant, at other times it is remarkably deficient. The inflammation occasionally extends to the salivary glands, and to the mucous membrane of the lips or cheeks; and it not unfrequently happens that the gums becomes ulcerated.

When the gums are merely indurated, there is very little tenderness, no redness of the part affected, and the secretion of saliva is not increased. The gum is thickened, but, otherwise, presents an appearance so natural, which is of the greatest importance, is frequently overlooked.

The principal thing in the treatment of these cases, is to lance the gums freely. A superficial incision will be of no avail; the gums must be cut down until the lancet impinges on the approaching tooth. The only caution required, is that the incision be inclined outwards, in order to avoid the tissues which connect the permanent and temporary teeth. The shape of the gum lancet is a matter of consequence. In order to keep the instrument steadily fixed in the handle, it should have a spring back; the blade should be rather round and broad, and extremely sharp. The operation requires considerable skill and caution to ensure its safe and effectual performance. The terrors of the mother and the restlessness of the infant, frequently render it by no means an easy operation; and the careless operator is apt to wound either the cheeks or tongue, to make the incisions too superficially to be of the slightest use.

The prejudices of former writers against this invaluable operation scarcely require comment; but as we still find a few, and we are happy to say a very few individuals, who retain a bigoted

faith in the absurd dogmata of their forefathers, we will briefly refer to the objections which have been urged against the utility of lancing the gums. The first is, that the cicatrix, which is formed after the division of the gum, is likely to offer more resistance to the passage of the tooth than the natural tissues of the part. This notion is entirely opposed to the truth; the preternatural readiness with which recent structures are absorbed, is shown in the newly formed cicatrices or wounds of the extremities to become ulcerated. But were it otherwise, no injury would result from a repetition of the operation, a mode of proceeding which is often required when the first division of the gum has failed to give relief. The second objection which has been advanced, is the danger of serious hemorrhage from the gums. The possibility of such an accident occurring once in a hundred-thousand cases, in consequence of a hemorrhagic diathesis, constitutes a contingency so remote, that we need not burthen the memory with the recollection of it. One other charge against the propriety of the operation remains to be disposed of. It has been urged, that there is danger of injuring the second set of teeth, which are placed under the milk-teeth. Nothing short of the clumsiest manipulation could effect a serious injury of this description. By exercising the precautions which we have previously recommended, such a result is impossible.

In addition to free divisions of the gums, it is advisable in cases of severe dentition, that the bowels should be well opened; if, however, the action of a purgative should be followed by a tendency to hypercatharsis, with tormina and copious mucous stools, it will be necessary to check these symptoms by the exhibition of chalk mixture and ammonia. It must, however, always be borne in mind, that brisk purgation is one of the most effectual means of counteracting the local irritation of teething.

The most important of the general symptoms are those occasioned by the *reflection* of the irritation to the brain and nervous system. When this condition obtains, the pupils of the eyes are dilated; the child moans continually, and waves its head in a distressing and irritable manner. Violent convulsions often ensue, and recur in quick succession, until death, provided prompt relief is not procured, puts a period to the infant's sufferings. An extensive practice connected with affections of this class, has convinced us that the intimate connection of cerebral diseases with infantile dentition has not been sufficiently recognized, and that a more general acquaintance with the fact would be the means of saving many an infant from a premature grave.

A very common effect of teething is diarrhoea, attended with

tormina and tenesmus. When the purging is not excessive, as we have previously observed, it ought not to be arrested. The infant will emaciate under its influence; but as soon as the teeth appear, the child will begin to regain its flesh and strength. Vomiting is an occasional complication with diarrhoea, and may require for its removal a mustard poultice or a blister to the epigastrium.

Eruptive affections of the skin are among the commonest and most troublesome sequellæ of teething. Papular and vesicular eruptions make their appearance, especially on the head and face, and are often extremely difficult of removal. Their appearance is often followed by a subsidence of the constitutional disturbance, and on this account there is naturally a popular prejudice against arresting what is supposed to be a salutary effort of nature. The lower classes are so strongly imbued with this notion that they allow a moist form of eczema, which often attacks the ears, to run riot as it were, until the parts become violently inflamed and excoriated. Although it would be highly imprudent to arrest the affection hastily, nevertheless, after the teeth have cut the gums, the disease should be remedied by means of aperients, and a lotion of sulphate of zinc.

Spasm of the glottis is another symptom of an alarming kind, which is occasionally produced by the irritation of morbid dentition. It is marked by a loud crowing sound resembling that of croup, but differing from the latter disease in being purely of a spasmodic character, and from the momentary duration of the paroxysms. The attacks generally occur on the infant's awakening from sleep, or on its swallowing food. When the paroxysms are severe the danger of suffocating is imminent; the face and eyes become intensely suffused, the eyeballs protrude, and the general appearance is that of agony from suffocation. After a few moments the spasm of the glottis subsides, followed by the characteristic inspiratory noise. In some few instances, the face although indicative of intense suffering, continues pale during the attack. After all that we have observed on the importance of scarifying the gums, we need not insist on the paramount necessity of having immediate recourse to the operation in this alarming affection. Its beneficial effects are often immediate; as, however, the paroxysm is apt to recur on the eruption of every fresh tooth, it will be expedient to have recourse to precautionary measures. Laxatives and warm baths should be administered daily; a blister should also be applied behind each ear; and if the child resides in a crowded town or metropolis, change of air is indispensable for its recovery.

We have now enumerated the principal sympathetic disorders consequent on morbid dentition. Before concluding this division of the subject, it is necessary to observe that there are many intractable infantile ailments which are augmented by dentition, although they do not owe their origin to abnormal teething. This fact shows the necessity of careful attention to the gums in *every* disease of early life.

In our next communication we shall offer some remarks on caries and necrosis of the milk teeth.—*Brit. Jour. Dent. Sci.*

MATERIA MEDICA AND PHARMACY.

1. *Collodium*.—By EDWARD ZINKEISEN.—To detect the most advantageous process of preparing Collodium, the following trials have been made by me:

1. The Codex Medicam. Hamb. prescribes:

20 parts of dry Nitre,
30 parts of English Sulphuric Acid,
2 parts of Cotton,

which has been previously treated with soda—to be left in contact with the acids only a few minutes.

Four trials made according to this formula, yielded, after application of a temperature of from 45° to 35° R., during from 3 minutes to 1½ hours, very little more than 3 ounces of wool each, of which only ¾ could be dissolved in ether and ⅛ in alcohol at most, for there remained distinct undissolved filaments of wool. The quantity of cotton, therefore appears too large in this process.

2. According to the prescription of Mann, there are to be taken:

20 ounces of Nitre,
31 ounces of English Sulphuric Acid (of 1.830 sp. weight,)
1 ounce of Cotton,

which are to be left in contact for a “good while.”

I had the acids working on the wool for one hour and a-half, at a temperature of from 45° to 35° R., and after drying, got 1 ounce and 1 drachm of a very fine, clear, and entirely soluble wool.

This prescription, however, is too expensive for manufacturing purposes.

3. Bertram's formula:

16 ounces of Concent. Sulph. Acid (1.850 sp. w. by mixing fuming and English acids,)
 11 ounces of dry Nitre, and
 1 ounce of Cotton.

While mixing the nitre with the acid, the temperature went up as high as 60° R., some brown bubbles of oxygen gas escaping. After cooling the mixture down to 45° R., the cotton was kneaded, and left in contact for one hour, at nearly the same temperature. After drying, it yielded 1½ ounces of wool, which exploded heavily, but was insoluble. A second trial, at which the cotton was put in at 60° R., yielded no better result.

In this formula the sulph. acid is too concentrated and its effects too violent.

4. Schacht's prescription:

24 ounces Sulphuric Acid,
 16 ounces of Nitre, and
 1 ounce of Cotton.

Immediately after mixing the acids, the cotton is to be put in at a temperature of 45° R., and left in contact therewith for one hour, during which time the mixture is cooled down to 35° R.

Result.—1 ounce and 3 drachms, easily and completely soluble, burning very slowly. This Collodium answers every expectation.

5. Prescription of Bretschneider and Lüdersen:

6 ounces of fuming Sulph. Acid (1.850,)
 6 ounces of fuming Nitric Acid (1.410,)
 ½ ounce of Cotton,

the cotton to be put in in halves, 45 minutes in contact, at from 40° to 25° R.

Result.—5½ drachms, yellowish, quickly exploding, swelling to a gelatinous mass, with 16 parts of ether and 1 part of alcohol, and yielding, even with 32 parts of ether, a very thick collodium, the coat of which was very thin and transparent.

A second trial, at which the cotton had been left in the mixture only for 10 minutes, yielded the same result.

6. Koing's formula:

8 ounces of fuming Sulph. Acid (1.840,)
 4 ounces fuming Nitric Acid (1.410,)
 ½ ounce of Cotton, dipped in successively.

At the first trial 5 minutes' influence, at 45° R.; at the second trial, one hour's influence, at 50° to 35° R. The first trial yielded an entirely insoluble wool; the second, a wool only partially soluble—both of them, however, very explosive.

The prescription of Schacht is, undoubtedly, the most advantageous, especially in a pecuniary point. In eight trials, with

1½ ounces of cotton each, I got 17½ ounces of wool, and 20 pounds of very fine collodium. I have further to state that I made these trials with three different kinds of cotton. The chief points to be observed, in order to come to a satisfactory result, are, undoubtedly, the specific weight of the sulphuric acid, the temperature of the mixture, and the duration of the process.

According to my experience, the sulphuric acid should not weigh below 1.820, and not above 1.840; the most advantageous temperature is 45° to 25° R., which in general generates of itself, when the dry and completely cooled nitre is mixed with the acid. The time of contact should not be less than half an hour, in order that all the filaments of the cotton be penetrated. A good prepared collodium wool will, however, not be decomposed if left under the influence of the acids even for a long time.

It is advantageous not to dry the wool by heat, but by repeated pressure between blotting paper.—*Amer. Druggists' Circular.*

2. *Electricity as a Remedial Agent.*—Important improvements have recently been introduced in the mode of applying electricity as a remedial agent, into galvanic, magnetic, and electro-magnetic apparatus. A brush, consisting of a mixture of bristles and metallic eures or plates is the chief improvement. The metallized brush communicates with and receives the electric charge from a battery fixed in the back of the brush, thus causing positive or negative currents as may be desired by the operator, to pass from the ends of the metallized bristles when moved in contact with the hair or skin. The same person has also constructed a bath for the administration of galvanism, electricity or electro-magnetism; one part of which bath will communicate positive and the other negative electricity. This is effected by joining the battery of a combination of elastic or flexible water-proof material and metal in such a way that, when a part of the material is caused to envelope any required part of the body, two distinct currents of electricity or galvanism are created in the same bath.—*Ibid.*

CHEMISTRY AND TOXICOLOGY.

1. *Case of Poisoning by Opium.*—Dr. GOBRECHT in the *Transactions of the College of Physicians* of Philadelphia, reports a case of poisoning in a child aged *twelve months*, who had taken a *teaspoonful* of laudanum. The usual means were resorted to

such as emetics, stomach pumps—coffee and brandy, but all to no purpose. All efforts were used to keep it awake without effect—the pupils were contracted, and its surface cold and pale. At last he tried the powers of galvanism.

He said: “Having partly wrapped the two poles of a powerful electro-magnetic machine in towels, by which to hold them, I applied one pole to the nape of the neck, and the other to the pit of the stomach, for the purpose of keeping up artificial respiration, and the action of the heart. I commenced with the lowest power without much effect, and gradually drew out the keeper of the magnet to its full extent; even this for some time resulted in very little good, so that at about half past twelve I believed the case entirely hopeless; but by constantly removing and reapplying the pole, with this full power, at the nape of the neck, every few seconds, I was enabled to produce a perfect respiratory act, and decidedly to increase the action of the heart. This condition continued as long as the electro-magnet was used, but when the latter was discontinued for a little, these actions would become slower and weaker, and almost cease. Finally by its continued use I perceived a faint blush on the scalp, which increased, the child stretched itself backwards, raised its head, the face was suffused, it opened its eyes, and the pupils dilated. On suspending again the use of the instrument, it relapsed into almost its former condition. This happened many times, each time the infant coming quicker under the influence of the magnetic current.

The proceedings, as before mentioned, were continued until two o'clock, just three hours, when, on stopping the machine, respiration and the action of the heart continued undisturbed; the pulse was full, the skin red and warm; and a warm sweat broke out on the forehead; the child continued in a gentle sleep for half an hour, and then raising its head and opening its eyes, with the pupils naturally dilated, recognized its nurse and parents, played with its toys, and was quite well.

It has never had an unpleasant symptom since.

The instrument employed (Kidder's, large size) was of such power as to produce the most violent effects on myself and others when tested; but acted in no other way upon the child, than by producing artificial respiration, at least until the close of the proceedings, when general contractions and some pain were made evident.

2. *Exotic Medicinal Plants.*—The late report of the Patent

Office shows, that laudable efforts are making to domesticate many valuable medicinal plants, and with a fair promise of success. No doubt a change of soil and climate may effect changes in the strength of medicinal qualities, but we cannot expect that these will always be in the way of deterioration; in many cases there may be an enhancement of physiologic and therapeutic effect, and then we may hope it will become more feasible to guard against adulterations, and that greater dependence may be placed upon the uniformity of strength in particular parcels. No one of these plants promises more success, or more profitable results than the *papaver somniferum*, or opium plant, to the growth of which the climate and soil of large portions of the Southern States are well suited. The vice of opium eating and smoking will be likely to increase upon its extensive cultivation, and perhaps become more mischievous than the use of tobacco and alcoholic liquors; but we shall have the consolation of knowing, that while the opium is capable of greater injury in its abuses, it is at the same time more useful than either of the other narcotics.

3. *Electricity in Amenorrhœa*.—Dr. SANDERS says in his article on physiological electricity, that in those cases of amenorrhœa, where no congenital malformation exists, the application of the electric current will always be attended with success, even after the usual remedies have been tried in vain; but that it is important to combine with the electrical treatment, or to precede it by certain tonic medicines and invigorating diet and regimen. He quotes Dr. Bird as observing that, in electricity we possess the only real direct emmenagogue with which the experience of our profession has furnished us. He has never known to fail to excite menstruation, when the uterus was capable of performing this function. But this capability is always an important consideration. Nothing can be more absurd than to undertake the excitation of this, or any other secretion, while the state of the particular organ to be excited, is such as to forbid secretory action. The electric current may be sent through the uterus either from side to side through the hips, or from the sacrum to the pubes. Perhaps it would be still more effectual in cases of extreme torpor, to bring one of the wires into direct contact with the os uteri.

4. *Interference of Light*.—"Light seeking light, doth light beguile." Dr. Crawcour thinks that this line in "Love's Labor Lost," proves that Shakspeare, or whoever wrote the play, understood a principal of optics established by Dr. Young. Consider-

ing the manner in which the vibrations of two musical sounds, arriving at once at the ear, affect the sense with an impression of sound or silence, according as they conspire or oppose each other's efforts, he was led to the idea, that the same ought to hold good with light, as with sound, if the theory which makes light analogous to sound be the true one; and that, therefore, two rays of light, setting off from the same origin, at the same instant, and arriving at the same place by different routes, ought to strengthen, or wholly or partially destroy each other's effects, according to the difference in length of routes descended by them. That two bright lights should, under any circumstances, combine to produce darkness, is passing strange, but not more strange than true.

5. *The Lungs of Cities*.—Dr. WOOD, of Philadelphia, says the existence of a compact body of more than one hundred acres of ground, in the midst of a city, may serve hereafter the purpose of a great park. Nothing conduces more to the healthfulness of large towns, than the influence of open spaces clothed with a luxuriant vegetation. They are said to be the lungs of cities. They are something more. They not only, like the lungs, supply fresh air, and aid in throwing off that which is foul, in other words, perform the office of ventilation; but through the agency of vegetable growth, serve positively to purify the atmosphere, by absorbing and converting into organized matter the noxious gases contained in it. The large extent of surface covered by the city of Philadelphia, compared with the number of its inhabitant, and the grassy plots, adorned with shrubbery and trees, which occupy, in countless numbers, the unbuilt interspaces, is probably one of the main causes of her extraordinary healthfulness. To retain this immense advantage, it will be necessary to obviate the inevitable concentrating effect of increased population and business, by seizing every opportunity incidentally offered of preserving large open spaces; for to prevent disease is even better than to cure it. It would be well for Southern cities if their inhabitants would heed this admonition, and emulate the example of Philadelphia. Broad streets and open spaces are oftener provided than the essential concomitant, vegetation.—*Memphis Medical Recorder*.

6. *Cleaning Bones*.—Dr. HAMILTON, of Buffalo, gives the following formula:

R_y. Chloride of lime, ℥j.
Bicarb. potash. ℥j.
Water, gal. ij. M.

PART III.
EDITORIAL AND MISCELLANEOUS.

TRIAL FOR MALPRACTICE.

Being the first case of this kind before a Tennessee court, we have yielded a large share of our Journal to the trial of Dr. JOSEPH W. WOOD for alleged malpractice on the person of Nicholas Clapp. The testimony speaks for itself, and every one has a right to draw his own inference. The question now is what is to be the result of this beginning? In New York it resulted in the institution of several suits for the mere purpose of filching money from the pocket of the surgeon. One case occurred, in which the patient was proved to have done his best to prevent the good intentions of his surgeon, and in the February number of the *Boston Journal* a lengthy trial is published in which a party endeavored to obtain damages from a Physician for malpractice in an accident which was in many respects similar to that of Mr. Clapp's. Now it happens, as it ought to be everywhere, in Massachusetts both plaintiff and defendant are permitted to give testimony, and by this course the court and jury are put in possession of the facts by the only parties capable of communicating them. After the clear and convincing statement of the defendant, and the confirmation of his testimony by such surgeons as Lewis, Hayward and others, the senior counsel for the plaintiff rose and stated that the prosecution of the case would proceed no further. Instead of a simple injury, as he had been led to believe, it has turned out to be both compound and comminuted, and one very difficult of treatment.

The only safety for surgeons is to require an indemnity bond

from the patient and friends before undertaking the charge of such cases. We published last year a form for a bond of this character.

We are not averse to suits for malpractice where an injury is sustained from the practice of ignorant and incompetent pretenders, but there are many things in *private* practice which prevent even the most skillful surgeon sometimes from accomplishing his purpose, and perfecting a cure. *Confinement* is so repugnant to the feelings and wishes of many suffering under surgical diseases, that frequently the surgeon's directions are disregarded, and the healthy process interfered with. Such persons are then apt to charge their medical attendant with incompetency, and to meditate a suit in court for damages, whereas it has altogether arisen from his own imprudence. Such cases have occurred, and may occur again.

OUR ADVERTISING SHEET.

Our friends will see from our advertising sheet where to purchase some things called for in their professional and domestic arrangements.

The book store of Hanigan & Co., will be found replete with works in every department of literature, science and art, and they are themselves very obliging gentlemen. What they have not on hand, they will procure at short notice.

The long established drug store of Oldham & Co., has just been replenished with a new and fresh stock of drugs, medicines and chemicals. Their *medicines* are pure and genuine and well put up. Mr. Jackson, who presides over this department, being a graduated pharmacist, and having an experience of a dozen years in the business.

If any of our friends send North, we recommend to them the house of Hazard & Co., of Philadelphia, for whom our friend Rogers, of Tennessee, does business.

And if any thing is wanted in the Queensware line for a bachelor's office, or for the comforts and conveniences of the

"gude wife at hame," call in at Dixon & Whitaker's, and every thing belonging to an outfit for housekeeping may be found there; even drums for the boys and pianos for the girls.

AMERICAN MEDICAL ASSOCIATION.

We re-publish with pleasure the following circular, and urge upon our readers an immediate movement in this matter.

At a meeting of the committee of arrangements, appointed at the last session of the American Medical Association, held this day, Jan. 31st, 1857, in Nashville, we, as a committee, were appointed, to urge the necessity of an immediate organization of State and county Medical Societies throughout the Southern and Western States, especially, in order that each and every part of the Union may be properly represented at the next (10th) annual meeting of the American Medical Association, to be held at Nashville, Tuesday, May 5th, 1857, it being requested that each delegate shall have received his appointment from some permanently organized institution of good standing in the United States. Also, all bodies entitled to representation in this Association will greatly facilitate its affairs by sending, at an early period, a list of their representatives to R. C. Foster, 4th, Secretary American Medical Association, Nashville.

J. H. MORTON, M.D.,	<i>Chairman.</i>	} <i>Com.</i>
PAUL F. EVE, M.D.,		
R. THOMPSON, M.D.,		
W. P. JONES, M.D.,		
W. H. WHARTON, M.D.,		

The following extracts are from Article 2nd of the Constitution :

"Each local society shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half this number.

"The Faculty of every regularly constituted Medical College or chartered school of medicine, shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital, containing a hundred patients or more, shall have the privilege of sending two delegates; and every other permanently organized medical institution, of good standing, shall have the privilege of sending one delegate.

"Delegates representing the Medical Staff of the United States Army and Navy, shall be appointed by the Chiefs of the Army and Navy Medical Bureau. The number of delegates so appointed shall be four from the army medical officers, and an equal number from the navy medical officers."

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.

VOL. IX. *Instituted* 1847. Printed for the Association by

T. K. & P. G. Collins. 1856. pp. 907.

Of this handsome and really interesting volume before us we could say much, did our space allow. So many valuable pages are contained in it, that we must confess that we do not know how to discriminate, and to attempt a sketch of all, would require several numbers of our Journal. We will speak of it in another light.

This is the Ninth volume, and we venture the assertion that there is not another series of medical essays to be found in any language, so valuable as these. The essays and reports are all original, and their worth may be guaranteed from the fact that each paper passes under the scrutinizing examination of a committee before it finds its way into the published Transactions.

This volume contains 900 pages, and as this is an average for the set, the profession has had presented to it over *eight thousand pages* of matter contributed by the best talent in the Union. From the north, south, east and west, the experience of medical men here find a centering point, and side by side they stand, as beacon lights to the profession in the cause of humanity. These volumes should be in the possession of every physician, and as the publication price is only *three dollars* to the members of the Association, there is no reason why every one should not have them.

BAKER'S CASE IN THE JANUARY NUMBER.

The case reported in the January number, of the extraction of the uterus and its appendages, has entirely recovered; the girl now being able to return to her accustomed work, and suffering from no untoward symptom, except a slight discharge of pus from the vagina. We regretted at the time having to publish the case so near the close of the number, but it was received too late to insert in its proper place, and its importance induced us to give it in the addendum.

We see that it is attracting some attention among the profession.

LIEUT. M. F. MAURY.

In October, 1839, while on our way to attend the lectures at Philadelphia, we found, soon after leaving Nashville, that we had Lieutenant Maury for a traveling companion, who was then under orders to be at New York on a certain day to go out with the home squadron in completing the Atlantic coast survey. An occurrence happened during the trip which entirely changed his course in life, and caused him to be transferred from the ship to the land service of the navy. On leaving Somerset, Ohio, at 12 o'clock at night, with sixteen passengers on the stage—nine inside and seven outside—a drunken coachman precipitated coach and all, nine feet down a fresh embankment, and against a rail fence. Lieut. Maury was sitting on the box with the driver, and was thrown against the corner of the fence, and received a severe injury on his knee. On being carried back to the inn, an elderly physician, who seemed very frisky and full of gab, diagnosed a dislocation of the knee joint. For hours he pulled and tugged in his vain attempts to reduce the dislocation, when it was thought best to call in medical aid.

The second physician discovered that there was also a laceration of the ligament of the patella, that bone being found retracted high up in the muscular tissue. In some sort they fixed up his knee, but for nearly two months he was confined at Somerset. When we next saw him, it was at Dr. Ruschenberger's in Philadelphia, just after his arrival from Ohio. He was still suffering with a stiff and swollen knee, and we have since understood that he has been rendered permanently lame. This of course disabled him from active service, and as soon as he was able, he was put in charge of the National Observatory at Washington. Here he has rendered good service to his country through his numerous scientific papers on almost every subject, but more especially relating to the currents of the sea, and the winds of sea and land. He has so distinguished himself by these researches, that he stands pre-eminently high in Europe as well as in the United States. There is scarcely a vessel that sails that does not navigate the ocean by aid of his charts. And his

researches into the winds and currents of the air are showing that there is a close correspondence existing with those of the ocean, and that to be properly understood they must both be studied together. We await anxiously the result of his investigations into the extent and phenomena of the cold weather of January.

THE EAST TENNESSEE MEDICAL SOCIETY

Will meet in its next semi-annual session in this city on the second Wednesday of April, in the basement room of the First Presbyterian church, at 3 o'clock P.M. The semi-annual address will be delivered by Dr. R. H. Hodsden of Sevier.

SAMUEL PRIDE, M.D., *President.*

O. F. HILL, M.D., *Rec. Sec'y.*

MEDICAL GOSSIP.

The two most distinguished travelers and explorers of the age in which we live, are Dr. E. K. Kane of the United States, and Dr. Livingstone of England. Both are physicians, and both have extended our knowledge of the geography of the globe. The one has demonstrated, what has been supposed, that the Arctic Pole consists of an open sea, inhabited by animals, and surrounded by a liberal profusion of vegetation; the other has discovered in the midst of African sands, a people and a country of which we knew nothing, possessing a knowledge of many of the arts of life. The one was exposed for three years to the intense cold of an Arctic climate, suffering from the scurvy and the dangers of the ice, and comes home broken down in constitution; the other was exposed for more than sixteen years to the burning sun of a torrid clime, his face furrowed by hardships and the effects of thirty fevers. The one goes on a voyage of mercy to rescue a fellow-explorer, as well as a voyage of discovery; the other also goes on a mission of mercy to a benighted heathen, as well as a voyage of discovery. The one plants the standard

of his country near to the Arctic centre and beneath its folds reads morning and evening, with his crew around him, the pages of the holy volume; the other plants the standard of the cross in the torrid centre of an unknown continent, and explains to a dense throng, of whom before we had no knowledge, the mystery of redemption. To carry the parallel no further, both return home, and are welcomed with the plaudits of their countrymen. Both are physicians and both speak the English language.

Since writing the foregoing, news has reached this country of the death of Dr. Kane at Havanna, whither he had gone for his health.

— *Medical College of Ohio, Cincinnati.*—We see from the announcement that the 38th session of this medical school commences on the *first Monday in March next*, and is to continue four months. Degrees to be conferred at the close of the session. In this school are to be found Prof's. Lawson, Blackman and Wood.

Thus, one after another, the medical schools are adopting the system of giving two courses during the year, and of conferring degrees at the close of each session. And we see no reason why it is not as well as the old four months' course.

— *The American Journal of Dental Science* for January, has been received, and placed on our list of exchanges. It is, to our knowledge the best periodical on this science in our country. We feel curious to know when its list of "*Medical and Dental Journals Received*" was made up, for it looks very antiquated. We suggest a revisal of it. For instance, No. 9—*The Southern Medical and Surgical Journal*, was edited by J. P. Garvin, M.D., many years ago—lately it was edited by Prof. Dugas, and now by Prof's. H. F. and R. Campbell; and so of two thirds of those published as being received.

We select its sixth article on Infantile Dentition as a matter of interest to the medical profession, for our monthly record.

— Dr. GEO. C. BLACKMAN is now sole editor of the *Western Lancet* at Cincinnati.

— Dr. T. L. MADDIN, of Nashville, Tenn., was presented with a splendid cane by his private medical class recently at the close of the course.

Dr. MADDIN in his reply said of the science of medicine that it was "dignified above all other subjects that come within the purview of the human mind. The physical sciences which have occupied the life-time attention of the profoundest mind, are but collateral to it, and furnish only the elementary formula for the demonstration of its problems. When compared with the learned professions that have been ranked as its associates, we recognize in law only a *human invention*, a conventional arrangement for the mutual protection of personal rights and the entailment of property,—and though the objects and purposes of revelation are without a parallel, yet theology, as a science taught in the schools, is without orthodoxy,—while the science of man is the autograph of Deity himself, and embodies the highest effort of his creative power. "*To know thyself*," was enunciated by a Grecian philosopher to be the profoundest wisdom to which the human mind can attain, and yet, by the lights of modern science that knowledge has dimensions and a philosophy of which the sages of antiquity never dreamed. The great problem of man's proclivity to live, the attributes of his psychological nature, the relationship of these to his material being, and of both of these to the physical world around us, is now compassed by the philosopher's problem "*gnothi seauton*," and this is but synonymous with the true import of the science of medicine. Although the great field is yet unexplored, still enough facts have been discovered to demonstrate many of its important propositions, the practical application of which are daily being made of inestimable value in alleviating the physical and mental infirmities of humanity."

— *The Mining Magazine*, edited by W. J. Tenney, is the name of a valuable periodical, published in New York—\$5 per annum. It is devoted to mines, mining operations, metallurgy, &c. We notice in the January number the organization of the *American school of mines*. Success to the enterprize.

— *The true physician* is one of nature's noblemen. Nothing is more characteristic of him than the fairness and the urbanity which he manifests towards his colleagues. He spurns all underhanded measures, either to obtain a practice or to depreciate a brother practitioner's skill. He regards sly inuendoes as baser than the open attack—and consequently he is never seen lending a listening ear to the dissatisfied patients of others, and to their complaints he never replies with an oh! ah! In daily intercourse he is always polite and affable; at the bedside of the sick he is humane and sympathizing; in consultations he receives, with every mark of respect, the suggestions of his associates, seeking neither to establish himself, nor to injure his friend in the estimation of the patient and the attendants. But how often do we find a different course pursued. How it gratifies some physicians to know that an occurrence has happened by which a brother practitioner will suffer in public esteem. An instance of this occurred in the practice of the late Dr. Porter, of Nashville:

“An amusing incident, occurring early in his professional life, is related of him, which well illustrates his conscientious faithfulness to his patient, and at the same time his energetic contempt for professional meanness, and characteristic determination not to be imposed upon. He had a case of dislocation, which he could not succeed in reducing. After several attempts he very honestly told his patient, that although he had failed, yet the injury could be and ought to be remedied, and advised him to send for another doctor. Accordingly Dr. ——— was called in. So delighted was he to be sent for in a case which Dr. Porter had given up, that he must needs make the circuit of the city to let his medical acquaintance know how great a man he was. Some of them, astonished that so poor a stick should be called upon to supply a lack of service of a man of Porter's recognized ability and skill, mentioned to the latter how his substitute was endeavoring to make capital at his expense. The Doctor at once called for his buggy, drove to his out-of-joint patient, ordered him down on his back, and in a trice had his arm in place. Dr. ——— arrived soon after, and to his astonishment found that Dr. Porter had not failed.”

Now was this characteristic of the true physician, to say nothing of the gentleman?

— The *Medical Hall of the University of Louisville* was consumed by fire during the past winter. A great loss was sustained in the chemical laboratory and in the library.

— *An Opium Eater.*—We lately became acquainted with a lamentable case of an opium eater, in the person of a lady of excellent social qualities and highly refined intellect. While a girl, she was the subject of severe sick headache, and was recommended by a female acquaintance to take a small pill of opium. The effect was so soothing, that on the recurrence of the headache, she again resorted to it, and continued to do so, from time to time, till at last the opium became a necessity to her. She has now been using it for fifteen years, and consumes at this time more than one drachm each day. It is having the effect to becloud her mind, blunt her energies, and impair the healthy action of all the secretions. She sees her fate before her, yet has not the courage to stop; in fact, to use her own language, such horrid feelings would seize upon her, that she dare not stop. We recommended various substitutes, but to all her question was, will they relieve me, as opium does, of this sinking, depressed feeling? Her confessions, given in an earnest, decided and despairing manner, afforded another proof of the force of habit. With her, opium was more essential than food.

— We heard a few days ago of an amusing custom practiced by the negro during the spring season. It is to cut the grape vine after the sap begins to ascend and to bathe his hair, under the belief that it will make it grow, and cause it to be glossy. We recommend a trial of it to some one of the numerous manufacturers of hair invigorators. We have long noticed that the juice of the grape had the effect to produce baldness, but probably upon the old principle that “the hair of the dog was good for the bite,” it may be that the juice of the vine will counteract or restore the bad effects of the too-frequent use of the juice of the grape.

— *Female physic thrives apace in America.*—At Boston—where Columbia gave birth to the young Constitution, which is now sowing its wild oats broadcast—there is a female medical college, numbering 38 students. A grant of government money has also been voted towards establishing a similar institution at

New York. This is to be under the immediate superintendence of Elizabeth Blackwell, M.D., late of St Bartholomew's, with a bevy of those spinsters mentioned by Shakspeare as "free maids, who weave their threads with bones," for anatomical demonstrators. At Boston, moreover, there are eight doctoresses, with diplomas, in full practice. As it is just possible that the mothers of nice young men might object to an unmarried lady as family attendant, we suppose some of these female physicians are married. And this involves a great social mystery, of which we have as yet received no account. When the Mrs. M.D.'s are attending to flocks of patients in their *bourdairs* of consultation, or pointing out pathological *nick-nacks* in their anatomical drawing-rooms, or going their rounds with stethoscopes in their bonnets, what are their husbands doing? Do they superintend the perambulators, or are these hitched on to the professional broughams of the *mammas*? Is it a part of the husband's marital duty to manage the nursery—in short, to attend to domestic affairs generally? Perhaps matrimony is ignored altogether. Indeed, we do not well see how a conscientious doctoress could promise to love, honor and *obey* a husband, who might order her to give her patients a dose of strychnia all round. If this surmise be correct, there is a "sweetly pretty" and appropriate adaptation of our professional device open to the young colleges: a pair of bracelets twined round the handle of a parasol, with the motto, "*Innupta tenet copula.*"—*London Lancet*.

— Dr. H. W. King, of Rhode Island, communicates to the *Boston Medical and Surgical Journal* the following formula to be used in *scarlatina*:

R.	Glycerine	.	.	.	℥j.
	Creosote	.	.	.	two drops.

Rub together and anoint the body, except the scalp and face, night and morning—previously sponging the surface with warm water.

— Among all the antidotes recommended for *poisoning by strychnia*, we regard camphor water as the best and most certain.

— Will Dr. Hubbard, of the *New Hampshire Journal*, correct the error of his editorial for January? For one, the editor of the *Southern Journal* knows full well that his labors have not ended—and he is sure, from the testimonials, both of money and kind words which daily flow in upon his table, that others know the fact that he is still battling for the good of his time-honored profession.

— Dr. Kennard, of New York, in a communication to the *American Journal of Medical Sciences*, recommends the following ointment in *incontinence of urine*:

Rx. Sulphate of morphia.

Veratria *ad* gr.x

Prepared Lead 3j.

Make ointment—with which rub the perineum three times daily. His cases were those of paralysis of the urinary organs.

— *Philadelphia Schools*.—There have been in attendance upon all of the schools in Philadelphia during the past winter about 1500 students; of whom Jefferson College had about 500; University of Pennsylvania 400; Pennsylvania College 150.

— *Who is it* that is about to make this strange disposition of his body and estate?

"*A new excitement in prospect—burning the dead*.—An eminent New York physician has, according to the *Buffalo Republic*, written an elaborate work in favor of the practice of burning the dead, which is to be published after his own death.

"By his will, he directs his mortal remains to be kept for five days in a warm room; the thorax then to be opened, and the heart extracted, which is to be embalmed and enclosed in a thick vellum bag, strongly impregnated with asphaltum; the remainder of his body is then to be publicly burnt on a pyre of sassafras or sandal wood, in one of the public cemeteries—the ashes carefully gathered and deposited with the embalmed heart in a bronze urn. Five copies of the leading daily papers, containing an account of the whole proceeding, are likewise directed to be deposited in the urn, which is then to be hermetically sealed, and taken to the New York Museum.

"In the midst of the excitement created by these proceedings, the work is to be published. For its circulation \$10,000 are appropriated; \$10,000 more for distribution among the city officials, and leading poli-

ticians of all parties, who are to receive from \$25 to \$100 each for assisting in the ceremony; and \$10,000 for the editorial fraternity, to be divided *pro rata* according to their influence

"Should anything occur to prevent the due execution of the will, the bulk of his property is to be at once transferred to a charitable institution in Philadelphia.

"The *Republic* has these facts from the attorney who drew up the will. He estimates the property at \$200,000."

— *The Virginia Volcano*.—It is said that the statement in reference to a volcano having recently made its appearance in Pendleton county, Virginia, on the great Backbone mountain, is true. It is in this same mountain that the warm and hot springs of Bath county are to be found. The *Cumberland Telegraph* says:

"It is at a point on the mountain directly between the heads of the dry fork of Cheat and the south branch of the Potomac rivers, at a place known by the name of the 'Sinks'—so called from the depressed condition of the mountain at that point. These 'sinks' are funnel-shaped, and each one embraces as much as an acre of ground. On the 1st of January, 1857, the reports caused by the bursting forth of the subterranean fire were heard for a distance of twenty or thirty miles. Vast columns of flame and smoke issued from the orifices, and red-hot stones were thrown up in the air several hundred feet above the mouth of the crater. Our informant adds that the people in the vicinity are becoming alarmed at the pertinacity with which the flames are kept up and the red-hot masses are thrown out. A heavy, rumbling noise, like distant thunder, is continually reverberating through the deep caverns of the mountain, which at times seems to tremble from summit to base."

OBITUARY RECORD.

HUGH MILLER.

News from Europe brings us the intelligence of the death of this distinguished Geologist and christian. He had been ill for some time, working hard and late at night in completing his new work on Geology. In consequence of these labors his health had begun to suffer and his mind to be troubled, frequently having

attacks of nightmare. As there had been attempts made to break into his museum, he had provided himself with a loaded revolver. On the night of the sad occurrence he had awakened in a fit of nightmare, and, taking up the pistol, had reached the door of his bedroom, when the pistol exploded, the ball passing through the chest. A post mortem examination was held of which the following was the conclusion of the report:

The cause of death we found to be a pistol shot through the left side of the chest, and this, we are satisfied was influenced by his own hand. From the diseased appearance found in the brain, taken in connection with the history of the case, we have no doubt that the act was suicidal under the impulse of insanity.

The following few lines to his wife, found written on a folio sheet lying on the table beside his corpse, give painful evidence of the awful intensity of the disease:

Dearest Lydia—My brain burns. I must have walked; and a fearful dream arises upon me. I cannot bear the horrible thought. God and Father of the Lord Jesus Christ have mercy upon me. Dearest Lydia, dear children, farewell. My brain burns as the recollection grows.
My dear, dear wife, farewell.

HUGH MILLER.

He began life as a quarryman, and amongst the rocks in which he daily worked, he took his first lessons in Geology. He wrote and published many valuable works on this subject, the most popular of which is *The Footprints of the Creator*, in which he subverts the Lamarckian theory of a gradual progression of animals, which had been reviewed by the author of the *Vestiges of Creation*. He was truly a christian man and a scholar.

DR. MILTON TATE

Died at Clinton, Tennessee, September, 1856. He was highly esteemed as a physician and citizen. He died of Typhoid Fever, which was prevailing epidemically at the time.

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January, 1857.

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THE
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MEDICAL AND PHYSICAL SCIENCES.
APRIL, 1857.

PART I.
ORIGINAL MEMOIRS AND CASES.

ART. XXIII.—*Epidemic Dysentery, as it prevailed in the Sequatchee valley in 1856.*
By B. FRANKER, M.D., Pikeville, Tenn.

This disease has prevailed in this valley, during the last summer and fall, in quite an aggravated form, many of the cases proving fatal in four or five days from the commencement of the attack.

There have been, in all, some sixty deaths, in a population of perhaps not over two thousand. Its ravages were mainly confined to a comparatively small locality, commencing about two miles below the village of Pikeville, and extending some ten or fifteen miles down the valley.

The disease showed a decided tendency to depression. Typhoid symptoms were often present from the commencement. The evacuations from the bowels were at first feculent and free, gradually becoming smaller and mixed with blood as the disease advanced, until they consisted mainly of blood and mucus. Sometimes green vitiated bilious matter appeared in great abundance

in the stools, and was often thrown up from the stomach very copiously. This vitiated bile was a constant source of annoyance in a large number of very bad cases.

It would not show itself in all the evacuations, but every day many of them would be almost entirely composed of vitiated matter. There was but little open febrile excitement. More frequently the skin was cool and the capillary circulation slow and feeble. The pulse was always very frequent, and generally soft and compressible. The tongue, slightly coated, soft and relaxed, seldom become dry and red. As the disease progressed, the dejections became more frequent and distressing. In many of the cases that I witnessed, the patients were compelled to yield to the inclination to stool as often as every ten or fifteen minutes. The quantity passed from the lower bowels was generally quite small, although it increased as the disease grew worse, and its character changed likewise from a thick bloody mucus to a thin sanious fluid. In all the worst cases there was a constant downward tendency in the system. If this was not arrested by suitable treatment, the patient continued to sink, and that very rapidly, death often resulting, not so much from the depleting process going on in the bowels; nor from the high grade of action existing there inducing mortification, but evidently from a general overthrow of entire organic actions throughout the system.

From what I saw in this epidemic, I feel sure, that much of the pathology and treatment, laid down by writers high in public confidence, is incorrect and mischievous. The theory advanced by most writers, that dysentery is a simple inflammation of the mucus coat of the lower bowels, may be true when it occurs sporadically; but certainly stops short of the truth, when it prevails in its adynamic epidemic form. There is, no doubt, in all cases an irritable state of the system, and always, more or less inflammation in the mucus membrane; and this may be the most serious difficulty to contend with in the treatment. In fact, it may be the only part of the system, so far as we can see, that is at all out of order. But yet, there is something behind this condition, which is the cause of the disease itself. This cause, whatever it may be, so acts upon the whole system, where the disease

prevails in its adynamic form, as to bring under its control and subject to its malign influence, every organ in the body. Inflammation of the bowels, in this condition, is there only an effect, a coexisting developement, an indication by which we are made acquainted with a specific disease. Just as the sore throat and eruption in scarlatina, indicate to us its existence. In scarlatina there is always inflammation in the fauces, yet no pathologist would say that this was all of the disease; neither should we contend that inflammation of the bowels is all of flux. What the disease is, we cannot tell in either case, but is as cognizable when manifested through the rectum, as in the throat. By some writers it is held, that dysentery is caused by a congestion in the portal circle. That from some cause the liver becomes torpid and ceases to allow the free return of blood from the bowels through the vena portarum. That this stasis of blood produces ultimately inflammation of the mucous coat of the bowels, and hence, blood is poured out to relieve the plethora, and that the disease or at least the hemorrhage is an effort of nature to relieve herself in the wrong direction. This theory is ingenious and plausible, and is easily understood, and it requires but little effort to practice upon it. But if it is true, there are some things we are unable to understand. In flux we know that the seat of the hemorrhage discharged is in the lower bowels. Why, it may be asked, does not the entire abdominal viscera, which discharges its venous blood through the vena portarum, partake of the diseased action?

Again, where is the evidence of obstructed liver? This organ was generally more active during the early stages of the disease, as witnessed here, than it is in health. In nearly all the bad cases there was daily and frequently in every stool, copious bilious discharges, so much so that, the symptom was looked upon as one of the most unfavorable that presented during the disease. Now if active biliary secretion is evidence of hepatic obstruction, then this hypothesis may be true. But on the contrary, if the activity of an organ in performing its function, is indicative of a free circulation, then the liver was not obstructed. I do not contend that the copious green matter witnessed was

pure healthy bile; but it evidently came from the liver, and was no doubt eliminated from the blood by the same secerning vessels, that produce bile in the healthy state.

Moreover, if this obstructed state of the liver exists, and is the primary seat of the disease, why is it that it cannot be detected after death?

Post-mortem examinations have failed to discover any diseased condition in the liver, more than might be expected from the general deranged condition of all the organs. There is an old and rather vulgar adage about giving the devil his due. As in morals, so medicine, we should never make the liver the scapegoat to carry off our ignorance. Physicians are too apt to look upon the liver as the pandora's box from whence springs nearly all the diseases which flesh is heir to. Men of one idea, who are incapable of surveying profoundly the nature of disease, and studying all the complex movements in the train of morbid action, are ever ready to pounce upon this organ whenever they have a bad case, and they are at a loss what else to do.

This doctrine of congestion in the portal circle was a favorite hobby with Professor Cook of Lexington, Ky., several years ago, and at that time it had an extensive influence upon the practice in the whole south-west. Its bad success has nearly rendered it obsolete at the present day. Recently, however, it is revived to explain the pathology of dysentery. But those who adopt it and foresee the practice legitimately following from it, will find it not only inefficient, but positively injurious. I should not dwell at such length upon what I consider mistaken theories in regard to the pathology of this disease, were it not that wrong theory nearly always leads to wrong practice, and as I consider the theories, above referred to, to be the source of a very injurious, although prevalent practice, I deem it proper thus to notice them.

The practice founded upon both these theories, is pretty much the same. Both require the free administration of calomel and depend upon it to arrest and cure the disease. Upon the theory that the disease is simply an inflammation of the bowels, Dr. Wood in his justly celebrated work proceeds to lay down a plan of treatment that is certainly fallacious and mischievous. It is

sometimes the case that an author may become too popular. This I believe is now the condition of this distinguished medical writer. His practice of medicine has become the standard of almost every practitioner in the land. It is not only in the library of every physician but lays upon his table ready to be consulted in every difficulty, every word is treasured up, and remembered, and acted upon with implicit reliance. Whatever remedial agent he recommends is given often without sufficiently noticing his salutary cautions. In his chapter upon dysentery, after treating of the disease as it prevails sporadically, he tells us that adynamic or typhoid dysentery often prevails as an epidemic, and is a much more grave and malignant type of the disease. To arrest and cure it, he urges the early and energetic use of mercury, pushed to ptyalism. He insists that it will arrest and cut short the disease, when nothing else will, and that reliance is to be placed chiefly upon it. This plan he says should be put in execution immediately after the patient is first seen. The only cases where it is inapplicable are those of excessive debility or great malignity.

The young practitioner has a case of dysentery. The disease is prevailing in its epidemic form. The patient is bad, he consults his favorite book, and at once gives calomel and tries to salivate. His patient gets no better but still grows worse. He pushes the medicine further, and looks in vain for that amendment he is taught to expect. The downward tendency is now still more rapid. Now the question occurs in his mind how low must his patient get before it is a case of great malignity or excessive debility?

But is it true that we should rely chiefly or at all upon this medicine in this disease? From a long experience in which I have treated many cases of flux, and more especially from what I have seen in this epidemic, I feel well assured that it is not the proper treatment. In the first place, in low typhoid dysentery, it is impossible to impress the system with the specific effects of mercury. Its administration only tends to impair the vital energies and reduce still lower the powers of life and any attempt to bring about ptyalism, by administering dose after dose of calomel, only produces a perturbing influence, goading the

liver to inordinate and unnatural activity without the slightest influence upon the disease. Why, it may be asked, is calomel inadmissible in cases of great malignity. It must be from its known action upon the blood in depriving it of its fibrine. In all diseases of an adynamic character, the blood is found to be defective, and hence it is improper to impoverish it still more by the agency of mercurial action.

Adynamic dysentery is evidently a low form of disease, and although some cases are worse, and more malignant than others, in all there is the same type of the disease. Where there is high febrile action and open excitement, the mercurial impression may act favorably, but when it is otherwise, it is impossible to see how it can act in any other way than injurious. In most of the bad cases, the indications clearly pointed out the necessity of correcting and restraining the inordinate action of the liver. Is it reasonable to expect that calomel will do this, given either as a purgative or sialagogue? Can it be made to blow hot and cold, to suit the case? If so, then this article must be endowed with a sentient power, claimed for no other medicine. But perhaps the advocates of this doctrine are converted to the old faith that the hair of the dog is good for the bite.

Treatment.—Upon the subject of treatment I shall only give briefly, that plan which seemed to be best adapted to carry the patient safely through the disease, omitting to mention many articles that were often tried, and may have been occasionally beneficial, but were generally found to have no good effect. In the first place I must state that I have no faith in the opinion that dysentery can be arrested in its course like simple inflammation. It is certainly, in its epidemic form, a specific disease and must run its destined course. Like typhoid fever, scarlatina, measles and many other diseases, it has its stages and periods, and will go through them sometimes slowly, and again more rapidly, in despite of the best directed treatment. The patient may be safely conducted through the disease by the aid of a skillful management. But he cannot be cured; he cannot have the disease to-day and by the aid of a single dose of medicine be well to-morrow. The effort of the physician should be to aid nature,

as we sometimes say, "to assist the vital forces in throwing off the hurtful cause." To check and control her exuberant actions, and repress or replenish her powers, as circumstances require. In many of the cases that occurred, there was nothing done of a very active character, the disease being in its mildest form. The patient was directed to keep the upper bowels clear of feculent or vitiated matter by some mild purgative, exhibited every day. After its operation, he took a full dose of Laudanum, and repeated every five or six hours as necessary to allay pain, and arrest the frequency of the stools. This course being pursued for five or six days the disease gradually abated.

In the more violent attacks, where the system was more deeply affected, it became necessary to adopt a somewhat more vigorous treatment. When the patient was full and strong and there was much open excitement, and he was seen early, venesection was resorted to with evident advantage. It required, however great caution often to know when to draw blood. Many of the cases, indeed much the largest number, would have been injured by it. It was only in those cases where the pulse was full and bounding and the system seemed overcharged with blood, and there was a general tendency to inflammatory action that I ventured to adopt it. In many of the cases there were, almost from the first, constant nausea and vomiting. In such cases the stomach was generally loaded with vitiated bile. When this condition prevailed a gentle emetic, often warm water alone, was sufficient and acted most happily. This was repeated throughout the disease whenever the indication required it. As a purgative, I found castor oil, with a few drops of spirits of turpentine, to answer every indication; often however, the stomach would not retain it. Then the seidlitz powders, or salts, were substituted. This was given at first in sufficient quantity to clear the upper bowels of all irritating matter, and afterwards as a gentle laxative to keep the upper bowels open, and free from the accumulation of fecal or other vitiated and irritating secretions. Generally it was found necessary to give something of this kind every day. After the action of the purgative, a full dose of laudanum was given to allay the pain and quiet the system. If this was insufficient, it

was repeated in four hours. If the bowels were still not restrained, an opiate injection was given or a small pill of solid opium was introduced up the rectum, as high up as possible. This nearly always afforded relief in a very short time. In fact, the pain and tormina and tenesmus were allayed more effectually by the opium pill than by any other means.

The stools were noticed carefully, and, if they contained evidence of active biliary secretion, which in a large majority of cases they did in great abundance, the same treatment was pursued from day to day. If, however, the liver ceased to act, two grains of calomel with five of Dover's powder was given at night, followed the next day by the laxative, and opiates as required. This always acted freely upon the liver, and I found no need in any case, to increase that quantity, and very often did not give more than one-fourth that quantity. In some cases where I gave a larger amount, which was done at the commencement of the epidemic, it evidently goaded the liver too much, and did the patient harm instead of good. In some of the cases in the early part of the visitation, a large quantity of calomel was administered in frequently repeated doses. Many of these cases died, I would not say that they would have lived without it; but certainly it failed to relieve or produce the slightest good effect. A more rational course of treatment was adopted by a portion of the physicians, who were in attendance upon the disease, while still a few maintained to the last that calomel was the chief remedy. But the result of the two modes of treatment has been so manifestly in favor of the non-mercurial course, that no observing physician, who is not doggedly wedded to the old routine could hesitate to adopt it.

When there was tenderness over the abdomen to a great extent a large blister was applied and often had a salutary effect.

If the disease did not yield in a few days to this treatment or at least halt in its downward course, stimulants were gradually and at first cautiously introduced. Indeed, from the first the patient was kept up by such sustaining diet as the stomach would bear, such as beef tea, chicken soup, &c. Especially if there was a decided tendency downwards. If, however, the system

still continued to sink, carbonate of ammonia, wine whey, good wine, porter and brandy were given sparingly or freely as the case demanded. This sustaining and to some extent expectant course of treatment, if steadily and perseveringly and fearlessly pursued, generally resulted in conducting the patient safely through the disease.

Many of the cases proved fatal, some no doubt from bad treatment and many from no treatment or worse than none. The first cases that were attacked were the worst, and many of them died, I have no doubt, from a tremendous effort being made to break up the disease by active and powerful medicine. Many other deaths occurred no doubt where the patients were treated by domestic remedies. In these cases often the patient was made to swallow every remedy that was ever heard of, without any reference to time or condition. As the disease advanced, and I became better acquainted with its peculiar type, I adopted the plan of treatment above detailed, and every case that I attended afterwards recovered although many of them were evidently among the worst cases that had occurred.

ART. XXIV.—*Medical Reports.* By J. P. EVANS, M.D., Cherokee Nation West.

Case of Intermittent Fever with Catarrh.—Sept. 29th.—A son of Mrs. Wicked, (a widow,) aged thirteen years, had been afflicted six days with tertian intermittent fever, complicated with a severe catarrhal affection. Arrived early in the night, during the declension of the paroxysm. He had taken castor oil some days previously. Cough troublesome; mucous expectoration, which lacks the peculiar tenacity of that of pneumonia. A severe coryza is also present.

R_y. Opium.

Ipecac, aa. gr.ss.

Sulph. potas. grs.vii. Dose.

Six were left; one to be taken every three hours. Also,—

R_y. S. quinine, 18 grs.

Myrrh, 10 grs., in eight

portions. One to be taken every two hours during the latter half of the intermission. A mixture of the tincture of opium and syrup of squills was left, to be taken in case the catarrhal affection should continue.

The intermittent fever was promptly arrested, and the *cold* soon subsided.

Many years ago, I remember treating an intense case of remittent fever complicated in the same manner. The fever was arrested as promptly with quinine as if there had been no complication; but the catarrhal affection continued for more than a week, and left an elongated condition of the uvula, which kept up a disagreeable tickling cough. Amputation of the organ gave perfect relief. Since then I have had numerous cases attended with catarrh, and have learned, from ample observation, that it does not contra-indicate the use or modify the antiperiodic action of quinine.

A Case of Amenorrhœa.—A negro woman belonging to Jacob Bushyhead, had had suppression of the menses for several months attended with almost a constant pain in the epigastric, and sometimes in the hypogastric region. The pulse was small and weak, and there was loss of appetite; an atonic condition prevailed.

R. Myrrh 5 grs.

Aloes $\frac{1}{2}$ gr., three times a day.

This course was pursued through two menstrual intervals, when the function returned; and some months afterwards the woman became pregnant, and in due time gave birth to a healthy child. She afterwards died of phthisis pulmonalis.

Case of Dysentery and Remittent Fever.—Oct. 8th.—Called in the morning (in town) to see an infant son of W. J. Steele, who had been sick for twenty-four hours. Found him with slight febrile excitement, and frequent profuse dejections of mucous, attended with distressing tormina, as was indicated by great restlessness and constant crying. Was informed that the day previous, until late at night, fever had run high. Viewed the case as one of dysentery complicated with periodic fever. The former was evidently the most grave affection of the two, *in this case*; I therefore state the fever as the complication. I was just starting off thirty miles, or more, and hurriedly prescribed:

R_y. S. quinine, 10 grs. in six portions, to be given at night, every two hours; and,

R_y. Dover's powder 2 grs.

Acet. of lead $\frac{1}{2}$ gr., every two or three hours.

Oct. 11th.—Did not see the child again until the annexed date. Shortly after my departure, another physician had been called, who had changed the treatment. *Purgatives* were given; and afterwards Dover's powder, which failed to control the morbid action of the bowels. On my return, I found the child with a hot skin, and suffering most intensely, as was shown by its constant and almost convulsive struggles and piteous crying; the alvine discharges were muco-sanguineous, and profuse. Morning remissions had still been observed.

R_y. Opium $\frac{1}{4}$ gr.

Camphor $\frac{1}{2}$ gr.

Starch 1 gr., every 2 hours.

S. quinine 1 gr., every hour.

Hot fomentations to the abdomen, were directed.

Oct. 12th.—More quiet, and discharges less frequent.

R_y. The same, continued, and sometimes two portions to be given at once.

The father, (a tailor,) was eccentric and extremely excitable, and in two or three hours afterwards called in a third physician whose treatment I did not learn. I did not see the child again until two days afterwards. Learned that the father, (who had examined a small work written and published by a celebrated Tennessee quack,) had discarded the prescriptions of the other physicians, as well as that of mine, and commenced giving castor oil, declaring that he *must* and *would* bring about a discharge of natural feces. Repeated doses were given during two days, which failed, however, in effecting the purpose, but succeeded admirably in increasing the child's sufferings. I was again called upon, and humanity prompted me to go; but anodynes and fomentations now failed to exercise any influence over the disease, and I knew of nothing else worthy of trial. *Verbum sapienti*.

Case of Anomalous Intermittent Fever.—Oct. 8th.—Miss H.,

a maiden lady, of thirty years, or more, a teacher at a missionary station, had been sick for more than two weeks. First had intermittent fever and took quinine principally, and it was arrested. Very soon afterwards, she rode on horseback twenty-five miles, and, secondly, on arriving at her point of destination was attacked with uterine hemorrhage, which continued some days; before it entirely ceased, she returned home. Soon afterwards it wholly disappeared, but early every night, at the same hour of the clock, she was seized with a *shaking*. Stated that no sensation of cold had been experienced, and no febrile excitement had been detected.

She now kept her bed from debility; countenance exsanguious; pulse small and rather frequent; appetite deficient. No anti-periodic agent had been given, because the agitation had not been attended with chill.

Ry. S. quinine, 20 grs., in six portions. One every hour, commencing early to-morrow morning. Afterwards a preparation of iron was to be taken, and a nutritious diet was enjoined. The *shaking* did not return after taking the quinine, and there was no relapse in any form.

Case of Remittent Fever.—Oct. 9th.—Rosalie Chotean, a widow, (Osage and French,) residing near the Neosho or Grand river, aged about forty-five years, had been sick two weeks, or more, with continuous febrile excitement and its concomitants. There were slight morning remissions. She was also annoyed by a dry cough. She had taken purgatives. Emaciated.

Ry. S. quinine, 30 grs., in eight portions. One every three hours. S. morphine was given at night, and the quinine continued until all was taken. The disease was cut short. No relapse.

Case of Intermittent Fever with Cancrum Oris.—Oct. 12th.—A sister of the two preceding subjects, aged ten years, had been sick for several weeks, with quotidian intermittent fever and cancrum oris.

She had, in that time, lost eleven teeth, in consequence of ulceration and sloughing of gums; the whole face had a puffed appearance; the ulcerations reached back beyond the molar teeth and exhaled an extremely fetid odor.

R_x. S. quinine, 15 grs.
 Tannic acid, 10 grs., in six
 portions. One to be taken every two hours, commencing early
 in the night. For the mouth:

R_x. Solution of the borate of soda.
 “ “ iodid of potassium, alternately as a
 gargle. The latter article was also given internally, in 2 gr.
 doses, three times a day, and the alcoholic tincture of iodine
 painted over the face.

The intermittent was promptly broken up, and the cancrum
 oris slowly but steadily improved.

Case of Puerperal Malignant Intermittent Fever.—Oct. 13th.
 —Mrs. Maxfield, aged about eighteen years, had been afflicted
 with tertian ague for more than a week; and the day before I
 was called, (35 or 40 miles,) had given birth to a full grown,
 healthy child, her first. A few hours after delivery, (1 o'clock
 at night,) the cold stage of the intermittent set in. This was
 the regular paroxysmal hour, and there had been no deviation
 from it. The stage of excitement succeeding the *stadium frigoris*,
 was attended with raving delirium, and obstinate squinting from
 the left to the right side. The husband being greatly alarmed,
 started a messenger for me. By the time of my arrival the
 febrile excitement had gradually disappeared, without perspira-
 tion. Found her in the intermission, and, at the first glance ap-
 parently doing well; but on examining the state of the pulse,
 perceived a slight *jerk*, and a *frequency* which I had never be-
 fore found in the apyrexia of intermittents. The skin was of
 a natural temperature. She had taken two or three doses of
 calomel since the commencement of her ague; and to-day had
 taken quinine, according to the statement of the husband, a con-
 siderable quantity, and I immediately commenced giving it in
 large portions. No disturbance whatever followed its use, until
 1 o'clock at night, when, “true to its mark,” the chill super-
 vened, followed by coma, incoherency, and squinting, as before
 described. Injections procured alvine discharges; cold water to
 the head was thoroughly applied, after the removal of the hair;
 and sinapisms were placed on the extremities; but in a few hours

my patient died, leaving a deep regret which will never be obliterated while my mind retains its integrity, that I had not doubled the quantity of quinine. No other course could have saved the patient. The occurrence of chill at precisely the same hour of the clock, (at a tertian period,) as at previous paroxysms, renders it plain the morbid catenation which ended fatally, was not fortuitous, or the result of the physiological effects of any medicinal agent employed.

Case of Remittent Fever with Asthma.—Oct. 18th.—Rev. John Duncan, a native preacher, aged about sixty years, has been subject to paroxysms of asthma for many years. Whilst on a visit to Tahlequah, (my place of residence,) he was severely attacked with remittent fever. I was absent, and did not see him for a day or two afterwards. He had taken a cathartic.

First saw him in the afternoon. Found him with high febrile excitement, and suffering with all the usual phenomena of asthma. Learned that there had been but a very slight abatement of fever at any time.

Ry. S. morphine, one-fourth gr., administered immediately. S. quinine, 18 grs., in six portions, to be given during the night and early part of the next forenoon. Also, five grains of blue mass were given at night. Jugulated, *both fever and asthma*.

I have since used quinine as an anti-spasmodic in asthma, and other affections, with decided benefit, independently of its antiperiodic operation. Drake terms quinine an "antiperiodic and anti-spasmodic narcotic."

Case of Neuralgia, orbital and nasal.—Oct. 18th.—Mr. Starnes, aged about thirty-five years, had been confined to his bed for more than a week. About sun-rise every morning he was seized with a most excruciating pain in the orbital regions, involving the lining of the nasal cavities. This painful condition continued, with excessive lachrymation and intolerance of light, until near sun-set; the pain then commenced declining, and in an hour or two disappeared, to be renewed again the following morning.

He had taken cathartics; and another physician had sent twenty grains of S. quinine, which had been taken during the

intermission; but the disease had not been arrested, or his sufferings mitigated in the least degree. Arrived early in the night.

Ry. S. quinine 34 grs.
 Piperine 10 grs.
 Myrrh 8 grs., in eight portions. One to be taken every hour, until all are consumed.

Ry. S. quinine 6 grs.
 Piperine 1 gr.
 Myrrh 5 grs. To be taken at once, early the next morning. Jugulated. No relapse. I have had many cases of a similar character since, and found that more quinine was requisite for their removal than for the jugulation of intermittent fever.

Case of Ophthalmia—Conjunctivitis.—Oct. 20th.—Fry, aged about fifty years, and residing fifty miles from me, had been almost blind for several months. When he arrived in town he was afflicted with intermittent fever. His blindness was not the result of opacity, but of intolerance of light, from an exquisite sensitiveness of the conjunctiva, which were discharging a purulent, ichorous matter, in large quantities, that excoriated the cheeks. Clean linen had not been an element in the regimen pursued, and the inflamed organs were surrounded by a filthy rim of desiccated pus.

Ry. S. quinine, 20 grs., in six portions. This was given during the night, and removed the intermittent fever. Supplied the patient with alum with which to form an external wash; and, with the aid of a small syringe, to clear the eyes of morbid secretions. A strong solution of the nitrate of silver was immediately afterwards injected. Blue mass was also given, and vesication on the nape of the neck produced with croton oil.

This plan was pursued for a few days, but did not seem to effect much change in the morbid action of the conjunctiva. Mr. Guthrie's ointment of the nitrate of silver was next applied, (nit. argent. 10 grs., lard 3j.) which produced great pain for a short time; but the next day the eyes were much better, and the patient could walk about the streets without a conductor. A second application was made, and further benefit resulted. The

patient returned home, with directions to continue the ointment. Two weeks afterwards he sent me word that he could see as well as he ever could. In less than a month he had relapsed, and went to a physician in an adjoining state. He next fell into the hands of a *pair* who advertised themselves as celebrated and eminent "oculists and ophthalmotologists," and used for some weeks, a nostrum, composed principally of the sulphate of copper. After this, he went to Fort Smith, in Arkansas, and placed himself under the treatment of a *hatter*, who professed to cure *sore eyes*. The "eminent oculists and ophthalmotologists," had persuaded him that regular physicians would destroy his eyes with *caustic*; he therefore avoided them, and sought for such as would *promise* a cure. Finally, after expending all his ready money, (the celebrities invariably had their pay in advance,) he ceased to do anything, and his eyes gradually improved; and at the present date he is able to attend to the duties of a farm.

ART. XXV.—*A Sketch of the Geology of Tennessee. Coal, (Continued.)* By R. O. CURREY, M.D., Knoxville, Tenn.

Geological Position of the Coal Deposits.—This formation is composed of alternating series of argillaceous shales, micaceous sandstones, and coal. They occur above the rocks of the transition, or silurian period, and below those of the secondary period. On the one side the fossil ferns of the coal strata is lined with the trilobite, the euomphalus, and the extensive family of the crinoidea; and on the other with the remains of the gigantic saurians—and their foot-prints impressed on the new red sandstone.

The characteristic fossils of the coal measures are fossil plants; such as stigmăria, sigillaria, lepidodendron, calamites, with many species of ferns—all beautifully impressed on the clays and shales, and sometimes even the

coal itself has presented the fibrous character of the wood. In the midst of the dense and majestic fern forest, as it originally grew and flourished, the only reptiles whose remains have as yet been discovered, the *cheirotherium* and *apateon*, stalked sole lords of their forest home.

Utility of Coal.—On this subject I introduce a few extracts from a report made by Charles Ellet, Esq., President, to the Schuylkill Navigation Company:

“This is essentially the age of commerce and of steam—the foundation of which is our *coal mines*.

“Each railway requires iron for its track, engines, cars, and frequently for its stations. Each new steamer requires coal to drive it—iron for its engine, and sometimes for its hull; and five tons of *coal* for each ton of iron it consumes.

“The manufacture of the iron, and the propulsion of the machinery require *coal*; the quantity increases with the expansion of the railway system; the system extends the area of civilized population, and consequent agricultural wealth. This wealth needs transportation, and this transportation again needs coal and iron.”

And as another report remarks:

“Mineral and metallurgic industry is, with agriculture, the most vital element of our country’s prosperity. COAL is the most essential agent of all industry; the foundry, the iron, constitute merely the instruments, the elements of riches.”

Palæontology of the Coal Measures.—This department of geology has not been developed to a sufficient extent in Tennessee to afford us a complete view of the fossil remains found entombed within it. But whether examined in the United States, in Europe or in Asia, these measures have always been found to contain the same classes and species of fossils; so that it is presumable that many more than have as yet been discovered, lie imprinted beneath the strata as on a page—the unread history of another epoch.

No one, at the present day, doubts the vegetable origin of coal. Its geological position; its chemical composition; its organic remains, each affords evidence of this fact.

Sometimes entire beds of coal are composed of small leaves; and at others the trunks of trees are turned up in a carbonized state. Some varieties of coal on the fresh fracture present the appearance of charred wood, possessing a glossy, soft and fibrous texture.

The character of the extinct flora indicate a vegetation that belongs to a tropical climate—and that delights in low, swampy localities; the corresponding species to be found at present in our temperate latitude being of stunted growth, and rather herbaceous than arborescent.

During some powerful convulsion of nature, these gigantic forests were suddenly engulfed or entombed, and the process of carbonizing went on gradually for ages, till, in the course of time, as in our coal field, another of those revolutions which have marked the surface of our planet, elevated our Appalachian chain of mountains, the waters drained off, and left, far out on land, this immense deposit of a mineral, adapted to the wants, that were to be, of man—the last act of creative agency.

Thus prepared, these carbonized masses of the remains of earth's primeval forests are, by the development of art and science, once more unlocked, and made to perform a part anew in the economy of nature. The elements of their composition are disengaged to illuminate the crowded city, and employed in thousands of operations devised by the ingenuity of man. The characters of the plants of which it is composed, are read in the leaves and in the fruit, in the trunks and in the roots which have escaped destruction during the process of carbonization. And the remains of the only two animals which are as yet known to have enjoyed the grandeur of this primeval scenery, are traced out in their tracks and in their fossils—the mute interpreters of things as they once existed.

The fact that there are found successive layers of coal, clay and sandstones, may be accounted for on the principle of what we see going on in the deltas of our rivers, and in our alluvial deposits, that of the rising and falling of the waters, and the periodic accumulation of drift. According to this, those parts of the plant which could float would be found at the uppermost part of each layer, while the heavy and water-logged trunks, perhaps still attached by their roots, would carbonize in the lower strata—in short, would constitute the coal itself. And such is found to be the case. The argillaceous slates are, in every seam, imprinted with the leaves and fruit and stems of the flora, while lower down the trunks and lower parts are imbedded, in some instances, in the coal itself.

The leaves of several species have been found, together with the roots, trunks and stems of others. Suffice it in this sketch merely to designate these without any special description or classification.

Of leaves we have, belonging to the ferns, the *pecopteris* and the *sphenopteris*, the stems of the *calamites*, the stems of the *sigillarias*, and their roots the *stigmarias*, the *lepidodendron*, and the *asterophyllites*, (the star-like fern,) besides stems and leaves of the *coniferae*.

So regularly and distinctly are these fossil flora imprinted on the fine grained slates that they appear as the work of art; they are in fact, nature's lithographs.

CHAPTER VI.

MIDDLE TENNESSEE.

The geological observer, as he passes in his explorations over each successive stratum composing the various formations of a district, has at his command at least three characteristics by which the different strata, especially

when interrupted by mountains or ravines, may be classified and referred to a common origin. These characteristics relate to the chemical constituents of the rock strata, their relative position, and the organic remains or fossils imbedded in them. He experiences no difficulty in forming a conclusion by the application of the first two tests; but in order to satisfy himself of the correctness of that conclusion, he must thoroughly read the history imprinted on that rock by the animals which existed at the period of its deposition. These three tests, therefore, enable him in a scientific manner to group together the rocks of a district in established formations. We have so far in our sketch had but little to say concerning this mute language of our geological formations, though the field over which we last passed was, in this respect, of no ordinary interest.

I pass now to the consideration of a new field, differing in the position of its strata, as well as in their characters, from those in East Tennessee, and in the coal measures; not so rich, however, in *mineral* resources, yet embracing within its limits abundant materials for individual enterprize. Here, too, the fossils of these middle counties, lying between the *base* of the Cumberland mountains and the Tennessee river, so numerous and so varied, render this as classic ground for the naturalist.

The traveler, on descending from the heights of the Cumberland mountains, the carboniferous formation of our State, finds, as he continues his journey towards the city of Nashville, a series of rock strata, each successive one being so much lower than the others. These strata are also found to differ in several other respects. If, then, he should pass beyond this point in any other direction, North, South, or West, he notices that he gradually as-

cends in like manner until he reaches the high lands, of a similar character to those at the base of the mountains.

The conclusion naturally forces itself upon his mind, that Nashville is lower than the surrounding country. This is true in a geological, though not altogether in a topographical, point of view.

I will therefore take the city Nashville as a starting place, in order to give a general description of the surface of the country under examination. Beginning at low water mark of Cumberland river, under the bluff, there is observed a thick stratum of a deep blue or blackish limestone, characterized by a small number of fossils—containing regular lines of flint-nodules, some of which are round, possessing imitative shapes, and others extended in thin layers. Tracing this stratum, it is found to disappear as we descend the river, possessing therefore a slight inclination to the N. W. On ascending the river, however, it is seen to rise higher and higher above the low water level, causing the natural inference, that it must, at some point to the S. E., become a surface rock, and as such it is noticed at Mill creek, and in Rutherford county.

This same gradual rising of the blue limestone is noticed in the cuts along the line of the Nashville and Chattanooga Railroad. Around the vicinity of Murfreesboro' it is found as a surface rock, but as we proceed towards Nashville it gradually sinks, till it disappears under other overlapping strata of limestone. Occurring therefore as the lowest limestone stratum in Middle Tennessee, one of two causes have operated to expose it to the surface; either the superincumbent strata have been washed away, or some gradual upheaval has given to it a higher

geological altitude at one point than at another. The rounded appearance of the stratum would clearly indicate this elevating cause.

Returning to our starting point, the succeeding strata are composed of grey and blue limestone alternating, not so compact, but of a more crystalline character, containing numerous cavities filled with beautiful crystals of various mineral substances—such as carbonate of lime, sulphate of strontian, sulphate of barytes, sulphate of lime, and quartz. Beautiful cabinet specimens may be procured from newly opened quarries. These strata embrace the rock from which is obtained the blue limestone for the foundations of our houses, and for burning into lime. It contains its characteristic fossils, more numerous and somewhat different from the preceding, evidence of its belonging to a different group. Overlaying these strata is another, which, on account of the great number of shells of the *Orthis* genus, might be distinguished as the *Orthis* limestone, the entire rock in some places being a mass of agglutinated shells. Just above this stratum comes another which is abundantly found in some places, but appears to be somewhat isolated, though the connection of the various beds may be easily noticed on opposite sides of intervening valleys or ledges. From this stratum is obtained the large and inexhaustible quantity of ash grey limestone, used for building purposes in the city of Nashville, of which the capitol and several public buildings are constructed. The State quarry in that vicinity opens to view a thick stratum of this limestone, one of the most interesting localities for geological observation. Overlaying this stratum is another of limestone of a compact structure, easily pulverized, breaking into flat, and somewhat conchoidal pieces, of a grey color. It is preferred

for the purpose of paving and Macadamizing turnpikes, on account of the readiness with which it breaks up, and the fine surface it affords when cemented together. And the last and highest in these series is a stratum possessing a yellowish color inclining to grey, well characterized also by fossils. It constitutes the uppermost stratum of the lower Silurian rocks in that region. All the rocks between this and the first stratum noticed, belong to the lower Silurian system, though they may be sub-divided into groups, and named according to the prevalence of each in certain localities. This entire limestone region embraces the interior counties of Middle Tennessee, possessing an area of about one-half of this district.

This stratum is about two hundred feet thick, and is of a very mixed character, sometimes being silicious and then argillaceous." Part of it is composed of small, often very fine and uniform grains of quartz or sand, rarely containing any argillaceous or ferruginous cement, nor does it contain any intermixed mineral. Its color is mostly grey, passing into yellow or yellowish brown. The texture, sometimes granular, often passes into earthy without losing its silicious nature, resembling tripoli; and sometimes it is slaty and again passes into chert."

Surrounding it, there are a series of elevated ridges which generally take their name from the water courses which originate in them, Caney Fork, Elk, Duck, Harpeth, and White's creek ridges. They observe no particular direction, but surround this limestone region, presenting at places bold escarpments, like the walls of a fortification. These strata are of a more recent origin, and consequently are superior to those just passed over, and belonging to the upper Silurian, Devonian, and Carboniferous systems. The first group consists of several

members of limestone rocks, which crop out at the base of some of these ridges, while in others they are wanting. They possess colors ranging from grey to blue. One member being of variegated colors, with red and green spots, and plentiful crinoideal fossils, and somewhat compact in structure, would afford an excellent marble. I have examined a locality some ten miles to the West of Nashville and incline to the belief that it would, on further exploration, be found an extensive and valuable stratum. It is susceptible of a fine polish, the encrinital stems scattered profusely through it, giving to it a beautiful appearance. Next in order in these ridges is found the black shale or slate, of various thicknesses, of an aluminous character, sometimes so highly charged with bitumen as to lead the uninformed to suspect the existence of coal. The iron pyrites, which is sometimes found in it in great abundance, renders it valuable as the source for the manufacture of Alum, Salts, and Copperas.

To this succeeds a stratum, denominated by our late geologist Dr. Troost, as "the Silicious Stratum"—it constitutes the uplands, and embraces nearly one-half of the entire district. Constituting the table land at the base of the Cumberland mountains, it is occasionally prolonged farther Westward in spurs, while at other places the mountain streams have cut deep ravines through it to the depth of the limestone beneath. Extending into North Alabama, and again entering our State and occupying all that region embraced by the counties bordering on the Tennessee river on the east—it surrounds as a zone or girdle the fertile limestone counties of the interior. This extensive stratum belongs to the Carboniferous system, and is composed of several members—a silicious stratum, and a calcareous sandstone. The water courses, origin-

ating in the interior, have cut their way through these strata, exposing the limestone and black shale below. These strata terminate before reaching the Tennessee river—the channel of this stream being upon the upper silurian limestone. About ten miles to the West of this river the entire systems of Middle Tennessee is lost under the Cretaceous system of the Western District.

In the examination of the various soils, there is observed a constant change as we pass from one variety of rock strata to the other. They also influence the growth of the forest-trees, and are of no little importance in the productions of the farm.

Minerals of Middle Tennessee.—We have already noticed the iron banks and iron manufacture of Middle Tennessee. It is one of its most important resources, while at the same time it is the most important metalliferous mineral found in this region.

In the aluminous shale of the silicious stratum may frequently be found deposits of aluminous earth, in quantity sufficient to compensate for the investment of capital. Near the Old stone fort in Coffee county, I have examined a fine locality of this mineral.

I might also notice the tripoli of White^o creek ridge, and the fluete of lime of Smith county and the gypsum or sulphate of lime of Summer county—together with localities of copperas and nitre along the base of the Cumberland mountains, but none of them have as yet been supposed to possess sufficient value to render them profitable.

Palæontology of the formations belonging to East and Middle Tennessee.—To present a view of these to their full extent would require a volume of no ordinary size. The late Dr. Trceost properly designated the limestone

strata, belonging to the silurian formations of our State, as classic ground for the naturalist. Just previous to his death, he had prepared a memoir on the *Crinoidea* of Tennessee, which he submitted to the Regents of the Smithsonian Institution as a scientific contribution. It was accepted but what has become of the manuscript I am unable to say. It should, by all means, be given to the scientific world, for it not only embodies the labors of our most indefatigable Geologist, but also is the only key which has as yet been prepared for interpreting the formations of our State.

There is not altogether a close correspondence between the fossils of East and of Middle Tennessee, there being many genera and species found in the one not possessed by the other.

In East Tennessee, the crinoideal fossils in the strata of variegated marble, and the trilobites and the euomphalus of the greyish limestone, are quite characteristic; while in Middle Tennessee, the conotubularia, and the orthoceratites, the calamipora and the catenipora, the terebratula and turbo of the blue limestone, the venus and belerophon of the granular white variety, and the orthis of the grey, are also characteristic, and the limestone which is found contiguous to the *silicious stratum*, and which possesses an oolitic structure is characterized by an abundance of the pentremites and encrinites. Perfect specimens of each have been gathered in Franklin county. Dr. Troost regarded the *strombodes* as also characteristic of these strata.

With regard to the age of these oolitic limestones, there is no doubt, from the identity of the fossils peculiar to the two stratifications, that it is coeval with the *silicious stratum*. The aluminous slate which intervenes is devoid of fossils.

This enables us also to determine the period of the deposits of iron ore peculiar to these strata. Dr. Troost advanced the idea that they were posterior to the strata in which they are found, but anterior to the greensand of the Western district; for in Perry county the cretaceous strata overlie the deposits of iron ore.

Middle Tennessee was also the home of the Mastodon and Megalonyx. The bones are generally found in alluvial deposits. I have in my possession several teeth, a portion of the lower jaw and several ribs of a Mastodon which was dug up in Wilson county. They were found while excavating a well, eight feet beneath the surface of the ground, and lying in between the crevices of the limestone rock. In the same crevice was found a large quantity of semi-carbonized wood, and among the debris thrown out, I picked up a pine buhr. There is now no pine nearer than the Cumberland mountains, one hundred miles distant. The wood also possessed the structure of pine. The animal, it appears, became wedged in the crevice and there died. I have been informed that other fragments have, since my visit, been dug up. A large elm tree was growing upon the spot.

CHAPTER VII.

CRETACEOUS SYSTEM OF WEST TENNESSEE.

The Western District presents to our investigation a field entirely different from the other portions of the State. The formations peculiar to Middle Tennessee pass to the west of the Tennessee river, and disappear under the West Tennessee strata. The line, where this change takes place, varies in its distance from the river, averaging, however, about three miles, conforming to a certain degree of longitude. All the space between the

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river and the line where the cretaceous strata first make their appearance, is a bottom land, and, when of sufficient width, admits of fertile fields. Occupying the foundation of this bottom or low land, are the limestone strata of Middle Tennessee, to which succeed the system which is now to engage our attention. These strata are called cretaceous, because among its members is included chalk, while the others also partake of that nature. There is, however, no chalk in the United States.

An examination of this system in our State reveals but a few of its members, yet they are of such importance as to render the district in which they are found, highly interesting, not only for the richness of its soil, and its agricultural facilities, but for the value which will, at no distant day, be attached to one of its beds, being the storehouse from whence will be obtained the material for the renovation of the soil of the surrounding country, and thereby prolong its capability for sustaining the population to come after us.

A singular feature is observed in the physical geography of West Tennessee. Two large rivers, whose currents flow in opposite directions, bound it on the east and west. There must consequently be an intermediate ridge of high lands, to separate the tributaries which flow to the one, from those of the other. And from this high land there must be a gradual inclination to admit of a natural drainage towards these two streams. It is noticed, therefore, that after crossing the Tennessee, a succession of high hills skirt along the western bank, at an average distance of three miles from the river. Ascending these elevations, the surface of the country appears to rise gradually higher for about ten miles farther Westward, from which point the slope is in an opposite direction—this is the

dividing ridge. Beginning at the Mississippi line, it is found to extend into Kentucky, the pleasant towns, Purdy, Lexington, Huntingdon and Paris, being nearly on the summit of the ridge, and nearly equi-distant from the Tennessee. While, therefore, the tributaries of the Tennessee are small, owing to the short distance they have to flow, with the exception of the Big Sandy, which though rising in the same ridge, runs a parallel north course, with the Tennessee for nearly two-thirds of the width of the State, before it empties into that stream—those which rise on the western slope, after pursuing very serpentine courses, and gathering numerous streamlets into their channel, enter the Mississippi, some of them important navigable streams. Of these are the Wolf, the Loosahatchie, the Hatchie, the Forked Deer, and the Obion. So numerous are the small streams which become tributary to them, that the whole district presents the appearance of net-work—an arrangement highly conducive to its agricultural facilities. In pursuing a line of observation from the Tennessee River to Randolph, on the Mississippi, we note the following peculiarities. At the distance of about five miles from the Tennessee, there is observed a series of hills—not contiguous ridges, skirting along the stream, each hill appearing isolated with rounded summits. Where washings have taken place, successive strata of blue marly limestone, white and red clay, and argillaceous sandstone, are exposed to view, cropping out from the western declivities, or between these rounded hills. The highest of these points is familiarly known as Pilot Knob, and is supposed to be at least 400 feet above the level of the river. These strata are seen to dip towards the north-west at an angle of 20° lying upon the strata of the Tennessee river, and form-

ing, by their inclination, a basin for the entire strata of West Tennessee. I will presently allude to an important fact relative to this underlying limestone stratum.

These limestone strata remain as the surface rock, except where covered by soil, until we reach Camden, where they disappear under a white silicious soil. To this point there is a gradual ascent, but to the west of it the surface of the country gradually slopes to the bluff at Big Sandy. This bank or bluff is neither so high nor so abrupt as that at the Tennessee river and is composed of the same white sandy soil. Passing over the low lands skirting this river, we observe, as we begin to ascend to the table land, a reddish clay soil, which readily crumbles, while above it we again come upon the white soil. Here, as on the Big Sandy, it constitutes the surface soil of the elevations. Descending thence to Huntingdon, we notice the red soil which again disappears under the same white soil, on the elevated point near McLemoresville. Thus alternating, the high and table lands present the same appearance to the Mississippi, except when covered over by the rich black alluvium of the river low lands. The successive strata passed through in sinking wells have exhibited the same white clay, red clay, blue marly limestone and white sand. These wells have been sunk to the depth of 100 feet. I do not know whether any attempts have been made to procure *Artesian wells*, but from the general structure of the country, the inclination of the strata, lying also upon the slightly inclined strata of Middle Tennessee, would seem to favor the idea that if borings were made to the depth of 400, 500 or 600 feet, a stratum would be reached from whence water would flow forth. The success of such an experiment would be of incalculable benefit to the country.

In the south-eastern counties, we find more fully exposed to view the marly limestone and the green-sand strata. These strata form almost entirely the surface of McNairy, extending also into a portion of the adjoining counties, but soon disappear under the surface soil. Here is presented another feature in the physical geography of this district. Extending from the Mississippi to the Tennessee river, through the northern counties of the State of Mississippi, is an elevated ridge which divides the waters of that State from those of our district. Towards this ridge the strata of McNairy and Hardin counties point, thus giving to them a dip to the north-west—at the same angle of 20 degrees. It is easy to imagine therefore a basin existing in the north-west counties. And that is in the vicinity of New Madrid, the seat of volcanic action in 1812.

The seventh report of our geologist contains an account of the green-sand of McNairy county, which is said to be “in the form of small dark grains of the size of gunpowder, of an olive or blackish green color not gritty, but easily crumbled between the fingers.” Sometimes these grains merely adhere together in lumps, but then again are cemented by the calcareous matter of the marl. The analysis of the green sand shows it to be a true silicate of potash, the principle ingredients being silica, potash, carbonate of lime, alumina, and protoxide of iron. The marl also contains an important proportion of carbonate of lime, the two deposits in this respect differing from the New Jersey marl. In these marls and green sands, *as well as in her productive soils*, consists the wealth of West Tennessee. The immediate spots where they form the surface rock, may be unproductive, but it is the unproductiveness of ex-

cessive fatness or richness. Marls or green sands only display their wonder-working properties when placed within the influence of organic matter. They are mineral manures, and to promote the growth of vegetation there must be in the soil a proportion of decomposing vegetable matter with which it readily forms soluble compounds. Their beneficial effects are observable, as well in renovating worn out lands, as in tempering the quality of black alluvial soils. To the first, they will restore the proportion of lime and potash which an exhausting system of tillage had removed in the form of crops—to the second, they will serve to open the mass of vegetable matter, and, by forming new compounds, warm up the cold alluvium, and render it fit for cultivation. The system of agriculture generally pursued in new countries, is conducted, by reason of the natural productiveness of the soil, with so little reference to scientific principles, that it is only in those countries where a constant tillage has exhausted the soil of all its powers to produce, that the application of science shows what rich treasures nature has provided for the wants of man. Nothing is truer than that a succession or rotation of crops is necessary to preserve the energies of the soil; and that if the same production is raised for several years upon the same field, it gradually degenerates, at last yielding no fruit to reward the husbandman for his toil. The plant takes up from the soil only those ingredients adapted to its well being—but, like the impoverished animal, where these are wanting, it will feed upon those things which may be detrimental to its growth, and cause it to sicken and die. The analysis of soils shows what they are capable of producing, and enables the farmer to apply the appropriate fertilizer for rendering them productive in the highest degree.

ART. XXVI.—*Osselets*. By S. HORINE, Dental Surgeon, Knoxville, Tenn.

I wish to call the attention of the medical and dental professions to the following facts. That teeth may be externally and not internally sound, and before they are extracted and split open, the general appearance is that of healthy and sound teeth. I have frequently met with teeth that contained a deposit of osseous substance within the pulp cavity, and enveloped within the pulp; which Rousseau and Marjolin call *osselet* (small bone.)

Case 1.—Mrs. W——, of Crawford county, Missouri, aged thirty-eight, of a nervous-bilious temperament. She had been married many years. Was called upon to prepare her mouth for a superior case of teeth. In the presence of her family physician (W. C. Williams,) I extracted five superior molar teeth, two had perfect enamels. I wished to show Dr. W. how the enamel and dentine were formed; and to do so, it was necessary to split them open. We found in one, three small osselets; two in another, and two with one in each, and one without any. We examined two osselets taken from different teeth, they were about as large again as a mustard seed, and of an oval shape. Under the microscope they looked like dentine in structure. In color, they were yellower than the dentine that surrounded them.

Case 2.—Captain E——, of St. Louis, aged thirty-three, nervo-sanguin temperament. Called to have his teeth examined. Owing to their being occasionally a dull heavy pain in the right superior teeth, he was unable to detect which of the teeth caused the pain; the only thing that relieved the pain was to press his teeth together upon a cork, commencing gently and after pressing for a few moments, to increase the pressure until the pain subsided, and as long as he kept up the pressure he had no pain. The paroxysms had occurred three times (prior to his calling,) in two years. His teeth were very much crowded, his cheek was irritated from the impingement of the wisdom tooth. I prevailed upon him to allow me to remove the wisdom tooth: to relieve the lateral pressure and the irritation of the cheek upon examina-

tion after extracting, the enamel and roots were sound. The periosteum was not much inflamed, no appearance of exostosis. I split the tooth, and found two osselets. I met the captain two years afterwards; he said that he had had no more trouble with his teeth.

In healthy teeth there is no red blood, as it is only after congestion has taken place that red corpuscles are found within the pulp cavities, or in other words there must have been a certain amount of inflammation to cause the red blood to flow within the cavity, and thereby sitting up an abnormal condition, which brings about these osseous deposits. I have found osselets in the teeth of persons as young as twenty. I could give quite a number of cases. I have met with them in destroying the pulp, or nerve, preparatory to filling. I have several specimens of teeth containing osselets. I also have a tooth with enamel below the process, which Horner says never occurs.

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

- ART. XXVII.—1. *Transactions of the Fifth Annual meeting of the Kentucky State Medical Society, held in the city of Frankfort, Feb. 6th and 7th, 1856.*
2. *Transactions of the South Carolina Medical Association, at the Extra Session in Greenwood, July 18th, 1855, and at the Annual Meeting in Charleston, Feb. 6th, 1856.*
3. *Transactions of the Medical Society of the State of Pennsylvania, at its Annual Session in Philadelphia, May 1853, Vol. iii.*

Nothing affords a better indication of the condition of the medical profession in any community than the energy displayed in sustaining associations for the promotion of medical science. It is true that too often are such assemblages rendered tiresome by displays of parliamentary knowledge, yet even then they are conducive of good. They tend to harmonize and fraternize the entire medical community, and thus fit them for the prosecution of a profession which demands, to its fullest extent, kindly feelings on the part of those who practice it. But the main element in Medical Associations is that they bring together men of different views, and experiences, and by a comparison of these, become mutual benefactors. We know that there are those who are loath to take part in such proceedings, advancing the opinion, what thousands can testify to the contrary, that they are productive of no good. We would like for such to be permitted for one season to look over the various published Transactions as they come forth from the different State Associations. We verily believe they would be persuaded to be an Associationist.

Though our Medical Associations in some places are thinly attended and apparently productive of no good, in others they

are festivals to which the profession flock in great numbers. The right spirit is there. It is a spirit of improvement, of progress, of harmony. The American Medical Association has contributed no little to bring about a healthful condition of State and County Associations. And we find that those Associations which are in the most prosperous condition, are those which most generally sustain the American Association. Why may not its influence be felt everywhere? And why may not every community feel the importance of sustaining that Association?

1. The Kentucky State Medical Society embraces a membership of about 180 physicians from every part of the State. Their annual meetings are well attended and matters of great interest are discussed. Committing to the hands of standing and select committees subjects for examination, they have at each meeting a rich festival spread before them.

Of the papers in the Transactions before us, the address of Dr. Spilman of Harrodsburg is full of interest. On this occasion of the Fifth Annual meeting Dr. S. says:

As the wanderer, who leaves his native land, and rambles for long years among strangers, and through multiplied perils, in quest of some cherished object of desire, has, on returning to the scenes of his childhood, a feeling of inexpressible delight, so upon our return to this hallowed spot, around which cluster all the fond recollections and inspiring emotions, connected with our earliest vital pulsations as a society, we experience a thrill of joy that is unspeakable, and have abundant cause to pay to our common Benefactor, the homage of grateful hearts, and to extend to each other the most cordial fraternal greetings.

The subject of his address was *the relations and reciprocal obligations of Medicine and the State*.

In the discussion of this subject our author very properly urges the following propositions: "that physicians, as a class, contribute more largely, in the proportion of their numbers, to the joint stock of public wealth, honor and happiness, than any other class in the community; that the vocation of medicine is one involving obligations more delicate, responsibilities more weighty, and interests more vitally important to the welfare of society, than any other."

Our author then proceeds to discuss medicine in a two-fold

aspect, as a *prophylactic* and as a *curative* agent. Diseases can be prevented as well as cured, and a well regulated sanitary police in every community is as essential as the civil police. But the neglect of this is a common thing. It is true when epidemics of a devastating character are stalking with giant strides over the country we are for cleansing and renovating every thing and every where, but this is an operation which had better be attended to at another time. *In time of peace prepare for war*, said the Father of his country, and it is no less applicable to the sanitary condition of cities and towns.

Dr. S. recommends that States should establish a *Health Police*, that as far as practicable all disease—producing causes may be detected and removed. The suggestion is a good one, and especially should every community act upon it, whether the Legislature provides for it or not. There are permitted by every municipality sinks of filth within their vicinity which are fruitful sources of disease and death.

Another relation in which medicine stands to the State is its therapeutic or curative. We extract the following:

Were we standing upon some lofty eminence, where we could command at one view this sisterhood of States, with their towns, and cities, and fields, and rivers, and lakes, teeming with human beings, of every variety of condition and grade in society—from the most thrifty and independent, to the most wretched out-cast, houseless, homeless, friendless, afflicted, and alone,—we should see in the great panorama before us, the marks, not only of physical cultivation, and a high state of commercial prosperity, but the most cheering evidences of a philanthropic spirit, and a christian age. Prominent amongst the improvements which mark our country and our age, are seen springing up in every direction, a number of Hospitals, Dispensaries, Infirmaries, and Asylums, as so many Bethesda's, where the unfortunate of our race are cared for, and every provision made for their comfort and relief. The philanthropy and generous sympathy of our people have become a proverb; and it is a source of just pride and rejoicing, as a mark of our growing civilization and christian charity.

With heart-felt pride do we witness the constant stream of sick and wounded pouring into these asylums; and with unstinted liberality, furnish means for their comfortable lodgment and the restoration to soundness. But, we ask, who are the founders of these noble institutions, that reflect so much honor upon our country, and bestow so much happiness upon the unfortunate of our race? Whose avocation leads them to discover the wounds and the woes, the wants and wishes, the

joys and sorrows of the community? Who are the friends and comforters, in adversity, especially of persons in every grade of life? At whose benevolent suggestions, and by whose untiring labors, have these institutions of relief been established? By whose friendly agency, and unremitting toil, has a balm been found for every wound, and a cordial for every fear; and the weary traveler, borne down by disease and pinched with want, may find a resting place, where he may be cared for, and his every want supplied? and whose assiduities and varied acquisitions are indispensable, not only to the successful conduct, but to the very existence of those receptacles of human frailty and misfortune? Considering the amount and character of the labor performed, and these institutions, it is amazing that men in this money-loving and money-seeking age, with talents and learning sufficient to insure the most eminent success in life, should be content with the little pittance awarded to them, whilst the same investment of talent and money, directed in almost any other channel, would yield more than any quadruple the profit in pecuniary proceeds.

Let us next accompany the medical practitioner in the walks of private practice, enter, with him, the abodes of penury and want; sit with him beside the sick bed, as he watches night after night, perhaps for weeks, with sleepless vigilance; share with him his alterations of hope and fear, as he calculates the chances for and against the patient, and at the termination of the case see him in the full enjoyment of his reward, for all this wear and tear of body and mind, the sum total of which consists in a consciousness of having directed his best efforts for the relief of suffering humanity.

See him again as the tap of the bell summons him, at the hour of midnight, to the bed-side of a neighbor. He plies his instrumentalities with all possible vigor. But hark! the sound of the bell bears another summons. What now? Mr. ——— has the cholera, and desires the Doctor with all possible haste. Another and another case occurs, and it is now but too manifest, that "pestilence that walketh in darkness" is present in all its desolating consequences. The entire community panic stricken and affrighted, are now prepared to resort to any expedient, or make any sacrifice to escape the insidious destroyer. Hence, all whose condition will permit, forthwith evacuate the infected region. But, deadly as may be the influence, imminent the peril, and dear as the life of the physician may be to himself, his family, or his friends, he has to stand his ground, rush into the thickest of the fight, and, by subjecting himself to fatigue, loss of rest, and exposedness to the infection, render it a miracle should he escape its ravages. Look at the honored forty medical heroes who fell victims to the epidemic of Norfolk and Portsmouth last fall, whilst men of every other avocation had the right—and thousands availed themselves of it—to escape with their families to some safe retreat; duty compelled them, and faithful to their obligations they stood firm and unawed, and opposed, with every instrumentality they could command, the progress of the disease, until borne down and overcome, while grappling the enemy, they fell—martyrs to the cause of humanity.

We have extracted largely from this address, but it is an able one, and we wish we could publish the whole of it. The report of the committee on surgery, Prof. E. S. Dudley chairman, is entirely occupied with a statement of the history of a criminal prosecution on a supposed charge of murder. The innocence of the parties depended almost exclusively upon medico-legal evidence.

In the *Transactions of the South Carolina Medical Association*, the opening address by Dr. J. P. Barratt, on the Objects of Medical Associations, is very creditable to the author.

Dr. SALLY, of Orangeburg, read an essay on Dysentery from which we extract the following:

The most successful treatment pursued by myself and most of the physicians in my neighborhood, is the saline purgatives in very minute quantities; the sulph. soda is generally preferred, though not exclusively. In mild cases, sulph. soda, tinct opii, each \mathfrak{zj} , in six ounces of water; a table-spoonful every third hour is a very good prescription. The super tart. pot., in ten grain doses, with one dram of tinct. opii camph. is very much such a formula as the first, and equally efficacious. I have used more than anything else, a powder made by substituting the sulph. soda for the sulph. pot. in the old Dover's powder, and adding two drachms of prepared chalk; the dose is from five to ten grains.

At the suggestion of my friend, Dr. Thomas A. Elliott, of Orangeburg Court House, I have used this season the super tart. pot., with opium and ipecac; ten grains of the former, with half a grain of the latter ingredients. This is an admirable combination, both from its efficacy and its convenience, and may be safely relied upon in the first stage of a large proportion of the cases we have to treat.

Another powerful remedy, first recommended by Dr. Armstrong, of London, is the pulv. nux. vomica; but without proper discrimination on the part of the physician, he is constantly liable to disappointment with it. I first prescribed it in 1852, and was very much gratified at the result of my experiment. In the first half dozen cases in which I used it, it exceeded my most sanguine expectations; the first dose relieving the patient of much pain and soreness over the abdomen, and diminishing the urgency of the tenesmus and the frequency of the stools. It was prescribed in seven grain doses three times a day. But again I was doomed to disappointment; for in the very next cases, in a different locality, my favorite remedy, my almost specific, proved to be perfectly worthless.

I still think it a very valuable remedy; but with proper discrimination will seldom disappoint the practitioner. The indications for its

employment are to be derived entirely from an inspection of the stools. I think I can tell when it is indicated, but do not know that I can convey the necessary information to a second person. I may approximate it, however, so as to assist him in making the necessary observations for himself.

I would not recommend it when the stools are all blood, or mucus, or blood suspended in serum; but I have great confidence in it, when they are composed of blood and mucus intimately mixed, or of mucus alone. These kinds of stools are always accompanied with a great deal of tenesmus and pain.

The spirits of turpentine is a very efficacious remedy in certain cases particularly where there is much fluid blood discharged. I prescribed it in combination with spts. of nitre and morph.—thus: R. spts. turpent. ʒij, spts. nitre ʒij, morph. gr. i, in six ounces of mucilage; dose a table-spoonful every third hour. The nitrate of silver has been highly spoken of by some; but I cannot speak favorably of it in the first stage of Dysentery.

* * * * *

The treatment of infants and children must be somewhat modified. They bear opiates so badly, that if care be not taken, the remedies will destroy more than they cure. Hyosciamus should be substituted for opium in all these cases. From half to a grain of hyosciamus, combined with from three to five grains of sup. tart. pot., I have found to be the best and safest prescription I have ever used. A child is often quieted by allowing him to sit in a tub of water, and applying warm fomentations to the abdomen.

In some bad cases of Dysentery, I have seen patients suffer much from dysuria. I know of no better remedy for this distressing symptom, than the frequent use of large cold water injections.

The second stage of Dysentery, which we have reason to believe depends upon ulceration of the large intestine, is much more difficult to treat properly than the first stage. The patient is emaciated in a very remarkable degree; the pulse is very frequent; the skin on the trunk hot and dry, with the extremities sometimes cool, the tongue dry, and sometimes dry or glazed; the stools, also, are changed, consisting of blood and mucus, or more purulent matter, and sometimes presenting particles of pure pus. There are very few remedies that act upon these ulcerations—probably the best are spts. turpentine and nitrate of silver. I have thought that iodine might be substituted for the *nitras argenti* in the treatment of these ulcerations. It has been recommended in ulcerations about the cervix uteri, and I have seen it act finely in removing these ulcerations. I have used it in one case only, of ulceration of the rectum of nine months duration, and with a good result. The quantity to begin with is one grain of iodine with two grains of the hyd. pot., in an ounce of water—to be repeated thrice daily, and increased gradually to two or four grains. It causes at first a good deal of irritation; but the patient soon becomes so accustomed to it, that he does not complain. However hopeless these cases may seem,

we should never despair: patients sometimes recover from this situation of apparent hopelessness. I saw one man in 1853 recover, even after I was certain that perforation of the peritoneal coat of the bowel had taken place. He was convalescing slowly from this condition of extreme emaciation and prostration, when he was suddenly seized with intense, circumscribed pain in the *right* iliac region attended with retching and tension of the abdomen. I sent him two grains of morphine in four papers; one to be taken every hour, until he was relieved. I saw him at day-light: found him asleep, after taking the third powder. He had his feet drawn up; and when he awoke, complained of a great deal of pain when the spot was touched, and of soreness for some distance around it. He had fever for ten days longer, but made a perfect recovery.

At the regular meeting in Charleston Dr. Miles was the orator of the occasion, and his address is an able advocacy of the medical profession.

An interesting case of rupture of bladder was narrated by Dr. Lebbey, which is illustrated in the Transactions, also a case of tubal pregnancy with rupture of right fallopian tube, both of which are interesting.

Dr. Wright presented an unique case of dislocation of the patella, in which there was a complete revolution of the bone on its long axis. The history of several cases of similar nature are detailed. The reduction was effected without difficulty.

We find upon our table, without knowing whence it came, the *Transactions of the Medical Society of Pennsylvania for 1853*. Somewhat old it is true, but nevertheless the value of its contents deserves a notice in our Journal.

First in the volume comes the proceedings of the society over which we pass to the President's, (Dr. Corson) address. In this masterly production, the Dr. first throws a javalin into the ranks of Homeopathy and of Hydropathy, admitting that there is nothing original or valuable in their modes of practice, but whose success is based solely on the credulity of its advocates, and then preceeds to show on what a firm and truly scientific basis our time-honored profession is founded. In speaking of the importance of chemistry to medicine he says:

In many diseases, the skill of the physician consists in his capacity to detect the derangement and apply the needed *chemical* ingredient

to combine with the effete matter which is poisoning the blood and thus deranging the system. The idea so recently suggested by a gentlemen from Berks county, and which has been received with such general approbation and ready acquiescence in its probable truth, that "diseases are materially influenced by geological formations," points to the importance of chemistry as the means of detecting those elements or agents, which existing in different soils, give rise to different diseases. By what other means can we detect them? And here we see too how important their discovery will be. If the waters of gravelly soil produce dysentery, and those of limestone regions are curative of it—if erysipelas, typhoid fever and ague, can be proved to result only from positive and invariable causes, to be found only in certain localities while others geologically different are always free from them, how soon will the chemist analyze earth, and air, and water, and detect the hidden poison! We send patients to the sea-shore, to the mountains, to mineral springs, believing the change will be favorable to health—but we do it on no scientific principle. When chemical science shall have received the proper degree of advancement, when it shall be properly taught in medical schools, the value of every medicinal spring will be ascertained, their active agents will be known, and their value as remedies be accurately measured. I have an almost confident belief that just in proportion as a knowledge of chemistry is cultivated, medicine will approach the exact sciences. Turn where you may in the field of labor, in our profession, and you find a knowledge of chemistry essential to the physician, and yet this branch of medical science holds so low a place in our medical colleges, that no one of them makes a knowledge of it *essential* to graduation. Why is this? This science has advanced during the last quarter of a century to a degree unparalleled in the history of any other. Its importance to persons engaged in almost every species of labor, has become so manifest that it is fast becoming a part of school education. It has convinced the farmer, who had a pious dread of innovation and great reverence for the traditions of his predecessors, that, in all his operations, he deals with living things, that are guided and controlled in their growth by fixed laws; that neither the animals nor vegetables which he is trying to rear can attain perfection unless each be furnished with good and wholesome food, and placed under the proper conditions as regards heat and moisture; that it is as impossible to raise a grain of wheat without furnishing to the plant the elements that form the stalk, the leaf and the grain, as it would be to raise the domestic animal without food or water.

At the Philadelphia meeting of the American Medical Association in 1849, Prof. Hare desired that body to adopt some measure which would compel medical students to pay the same attention to the Lectures on chemistry as on other branches. This was humiliating. We have often alluded to this fact in our editorials,

and believe that such neglect can only be remedied by making a radical change in the course of instruction given in this department. We know of no school in the Union where *medical chemistry* is taught. All the instruction given in this Department is only of the elements, having as much reference to agriculture and the arts as it does to medicine. It is chemistry applied to physiology, pathology, and medicine that our medical pupils want, and failing to get this in the chemical laboratory, they devote their time and attention to other branches. This has also arisen from filling these chairs with those who possess no qualifications as physicians, as eminent as they may be as chemists. The chemist in our medical schools should be as well acquainted with the principles and practice of medicine, the principles of physiology and the revelations of pathology, as he is of the principles of chemistry. The young men who wait upon his instruction desire a knowledge of chemical principles in application to the profession they expect to enter. We hope this subject will receive the consideration of the committee on medical education appointed by the American Medical Association. Dr. C. adduces strong arguments against the use of alcoholic beverages, especial as a remedial agent. He brings forward the statements of physicians from every section of the Union to substantiate his position. He says, in conclusion, "Were I a professor of midwifery, or of the practice of medicine, and believe brandy essential to the treatment of a single malady, I would appoint a solemn fast-day, on which to address my class. I would clothe the hall with drapery of woe; would attire myself in mourning, and, invoking the presence of genius degraded; of female loveliness and virtue deformed and outraged; of parental and filial affection, turned into bitter and burning hate by the use of intoxicating drinks; would, in the mournful accents of grief, discourse to my pupils on the darkness of the nineteenth century, which had, in this single case, furnished no substitute for that agent, which has filled the world with disease, sorrow, and premature death."

In the reports from county societies, nearly all of which are accompanied with maps of the respective counties, illustrating

the Geology and Topography of each, a valuable fund of medical knowledge is presented. They are valuable for affording at a glance the localities where epidemics are likely to prevail. With these Reports the principal portion of these Transactions are filled. They would form an interesting feature in the Transactions of all State Associations, and we hope to see the plan carried out more generally.

PART III.

MONTHLY MEDICAL RECORD.

ANATOMY AND PHYSIOLOGY.

1. *Contributions to the Physiology and Pathology of the Heart.—On the Motion of the Heart.*—By H. HAMBERGER, Professor of Medical Clinic in Wurzburg.—During the past summer the rare opportunity was afforded me of closely observing through a wound in the parietes of the chest the conditions of the heart's pulsation—a phenomenon frequently discussed, but as yet very obscure. The case occurred in a healthy man, thirty years of age, who attempted to take his life by stabbing himself in the breast with a sharp knife. The deed took place in a public garden, and I saw the patient half an hour afterwards, when he was brought into the hospital. According to the testimony of those who brought him there, the bleeding had been profuse, and must at first have spirted in streams from the wound. He was pale and exhausted, but conscious. It was a smooth-edged, gaping wound, about an inch broad, inclining downwards, somewhat in front of the nipple, and at the lower side of the fifth rib. Upon each contraction of the heart a considerable quantity of dark blood was discharged. It was evident that the patient, who belonged to the higher class, had intentionally selected that spot where the pulsations of the heart were best perceived. I pressed my index finger into the wound, and was greatly surprised to meet the flat, slippery point of the heart, which had, however, received no perceptible injury. There was scarcely a doubt that the pericardium was opened, as it would have been scarcely possible otherwise to have felt the point of the heart with the accuracy above described. Of course, I availed myself of this favorable opportunity to study, as far as was possible, the motion of the apex of the heart. When my finger was introduced from the point towards the back, I could convince myself with the greatest certainty that at every systole the hardened and pointed apex of the heart slipped down along the front wall of the breast downwards, somewhat to the left,

and a little below the lower margin of the wound; a copious discharge of blood taking place at the same time near my finger, whilst in the diastolic movement the apex retreated upwards and could not be felt. The duration of the first period, when the point of the heart moved along my finger, appeared to be somewhat shorter than the second period; yet I could make no positive assertion regarding this, as the contractions of the heart were so frequent, about 100 in a minute. Notwithstanding the strictest attention, I could not perceive the lever-like motion of the point of the heart, nor the rotation of the same about its longer axis.

It may be permitted me to offer a few remarks upon these observations. The most important object gained by it is, I consider, the establishment of the fact that during the systole of the heart a true movement of its apex takes place, in the direction from above downwards and towards the left. The question might arise as to whether this movement may not be considered only as an apparent one, induced by a systolic elongation of the heart; but since Harvey has shown more clearly the relations of the heart to the circulation, the previously accepted view of the heart's lengthening by the systole is entirely exploded, and at present the results of numerous vivisections and observations of ectopia of the heart places beyond doubt that the heart during the systole is lessened in its long diameter. The fact, therefore, that the apex of the heart can be felt considerably lower during its systole than during its diastole, only by an actual depression of the whole heart, can only be explained in the manner as described long since by Skoda. Skoda has published similar observations on a new born child, with deficiency of the sternum, where the fissure was only covered by skin. I had been a long time convinced of the correctness of Skoda's view, that in decided hypertrophy of the heart the deeper position of the apex of the heart during the systole might be proved by percussion, and those observations further made it highly probable to me that similar relations existed for the normal condition; this probability has since become positive certainty. This circumstance explains also the fortunate results of the above mentioned case. If the communicated facts are considered, we are necessarily led to the view that the stab must have been made at the time of the diastole, for only on such a supposition is it conceivable that the apex of the heart, which was felt beating so distinctly in the wound, could remain uninjured. Besides, it is not inconceivable that the violent physical concussion at the moment of stabbing may have prevented the occurrence of the systole.

SURGERY.

1. *Contributions to Surgical Anatomy and Operative Surgery.*
—By Dr. KNOX, Lecturer on Anatomy, and Corresponding Member of the Imperial Academy of Medicine of France.—Before the young surgeon ventures to operate on the living body, it is presumed that he has acquired, in the practical rooms of an anatomical school, such a knowledge of the use of instruments, and of the mode of performing the various operations, as to render many general remarks on such matters unnecessary. The surgeon ought, in fact, to be *familiar* with the use of surgical instruments—the forceps, aneurism needle, the common needle, scissors, saws, and knives of all shapes. Solate as 1821, French surgeons had no scalpels, and we in Britian no bistouries. Take care that you are provided with both, in order to meet every emergency. For want of a common short-bladed scalpel I saw a French surgeon of the highest eminence (M. Roux) baffled in performing so simple an operation as paring the edges of a perineal fistula; he had no other instrument but the long sharp-pointed French bistoury, with which he tried first in one posture and then in another to pare the edges of the fistula; it was a ludicrous failure.

Prior to any operation, however trifling it may seem, consider carefully its probable results. Observe the constitution of your patient; for there are some persons who cannot support operations, though aided by etherization. It is especially in public hospitals, infected generally with an unwholesome atmosphere, that all operations, not urgently called for, should be scrupulously avoided.

Whilst observing the practice of Messrs. Boyer and Roux, in the Hospital La Charité, Paris, the following case came under my notice:—

Case 1.—A young married woman, extremely beautiful, entered the hospital in order to have a small tumor removed. The tumor was situated at the root of the nose, and close to the eyebrow. She fancied that it marred her beauty, and might grow larger. In an evil hour for her, M. Boyer operated. The operation was clumsily performed, for the celebrated surgeon was now an aged man. The sac was punctured instead of being removed entire. It was, therefore, laid open, its atheromatous contents evacuated, and the cavity stuffed with *charpie*. Severe typhoid symptoms appeared next day, and in three days

more this beautiful woman was a corpse. It was said that she caught the typhus in the hospital, and that the operation had nothing to do with her death.

I have my doubts; but the plain facts are just as I have narrated them. In England, *at that time*, the typhoid symptoms would have been ascribed to her own constitution, and not to the presence of typhus *in the ward*. Be distrustful of medical and surgical theories, however distinguished their inventors may be. One of the first patients I saw in St. Bartholomew's Hospital, where I studied surgery, was a stout man with a compound fracture of the leg. He had all the symptoms of a most intense typhus. Mr. Abernethy remarked that were a physician to see the patient without being told of the fracture, he would say at once that the case was one of typhus. I confess that even then such was my opinion. Typhoid patients were in the hospital—I rather think, in the ward. But be this as it may, you cannot be too distrustful of medical and surgical theories.

Even in private practice, aided by all the advantages which comfort, wealth, and healthy apartments can give, surgical operations should not be rashly proposed merely to improve the appearance of the individual.

Case 2.—When Mr. Liston was rising into reputation as an operative surgeon, it was but too natural for him to urge operations on some who ought never to have been subjected. Amongst the victims of such unfortunate advice was a gentleman of rank and fortune. He had been annoyed for some time by the growth of a small bony tumor connected with the head of the fibula, and so situated as to be conspicuous above the edge of the hunting boots he occasionally wore. This gentleman, in the prime of life and health, was unfortunately recommended to have the tumor removed by a surgical operation, which was described to him as simple, safe, and of easy execution. Accordingly, the head of the fibula, and a part of the shaft involved by the tumor, were boldly removed by Mr. Liston. Severe and oft-repeated bleeding took place; and the surgeon failed in his attempt to secure the vessels. It was next proposed to remove the limb; but to this the unhappy gentleman objected. Death terminated his sufferings in a few days. Such cases are still far too numerous.

It occasionally happens that for some months continuously the air of an hospital exercises so pernicious an influence over the health of its inmates that no case operated on recovers. The hospital becomes, then, a slaughter-house, which ought, temporarily at least to be closed. The mortality in general hospitals after

battle is so terrible to behold, that I feel convinced that it would be preferable to tend the wounded in the open field. Under all circumstances, hospitals, whether civil or military, are great evils submitted to by mankind, to avoid still greater.

As regards hospitals and hospital practice, the young surgeon will do well not to be especially biassed in favor of what he has seen practiced there, nor to place unweening confidence in any name, however eminent. Self-sufficiency, easy to acquire, but with difficulty laid aside, is a serious drawback to character, whether individual or national. I remember the amazement I felt on first visiting a military German hospital, contrasting it with the clean, orderly, model-like wards of an English military hospital, similarly situated. Here all was still, mute, quiet; everything in its place. There all was confusion, noise, disorder; the men were smoking, drinking, talking, laughing, and amusing themselves; their clothes lay about in piles; it was liberty hall. Educated amongst a people fond of "models," I looked with pity on "these foreigners," and agreed with the staff-surgeon, also a model Peninsular man, who accompanied me in the visit, that these wards resembled pigsties. But a larger experience has shown me the evil results of our "admirable model systems," and of our self-sufficient dogmatisms. From these pigsties, as we were pleased to term them, the wounded escaped alive in a much greater proportion than from our "model wards." I am no advocate for filth or neglect; but freedom from restraint is a great good, whether within the walls of an hospital or without. We fancied also that *our* practice was, of course, the best, but the Russian surgeons appealed to statistics, and showed that of the wounded we lost two for their one. I shall return to this when speaking of the results of amputations, &c.

Never depute your duties to another, and weigh carefully the probable results before taking up the knife or scissors.

Case 3.—A young surgeon placed on board ship in charge of troops proceeding to a distant colony, was called on to attend the cabin-boy of the vessel, to whom an accident had happened. It was this. In descending the ship's side into a boat, he fell on a boat-hook, which lacerated the ham, tearing up the skin extensively. Instead of replacing carefully the large flap thus caused, he cut it off with a pair of scissors. Fever supervened next day, and the poor boy was reported to the surgeon to be very ill. He (the surgeon) did not trouble himself to visit the boy, but desired his orderly sergeant to give him a dose of calomel. The sergeant mistook the vial, and gave him for calomel a dose

of corrosive sublimate. The patient died shortly afterwards in frightful agony.

Were such occurrences frequent, it would be a fair object of inquiry with any community, whether the practice of an art so conducted ought not to be suppressed.

Occupying the first place in the thoughts of the surgeon should be the question of diagnosis. To be skillful in this marks the true surgeon. Whilst a student, I had the benefit of observing for some time the clinique of two physicians, one of whom was never right in his diagnosis; the other never wrong. I soon attached myself to the latter; my fellow-students followed the former in troops. They gave as a reason that he was an active practitioner, and used to prescribe twelve or fourteen different medicines to be taken in the twenty-four hours. The physician I preferred, having no faith in drugs, scarcely prescribed anything. I recommend the young surgeon rather to imitate the latter than the former; he cannot be too careful that his diagnosis be correct. A blundering surgeon benefits, it is true, a public hospital by adding to the accidents occurring out of doors and brought into the hospital a fair amount of in-door accidents occurring in the wards, but it is apt to give the person and the hospital a reputation not to be envied.

The revival of the use of anæsthetics or soporifics is an event of yesterday, as it were. They are now very generally employed and surgeons prefer, I think, chloroform to every other. By its use the sense of pain is deadened or destroyed. Where hemorrhage is not dreaded, a draught of good wine is the best anæsthetic; but this may safely be left to the choice of the patient. Should he prefer chloroform, the simpler the mode of application the better. A small quantity of the liquid applied to the nostrils by means of a handkerchief is the safest method of using chloroform. It not unfrequently happens that death follows its use, and therefore the surgeon will do well never to press it on his patient.

An operation cannot be performed too rapidly, if safely. Mr. John Bell, the greatest surgeon of modern times, never threw away an instant during his operations.

Case 4.—A gentleman consulted Mr. Bell for a fistula of the rectum, opening externally. The surgeon examined the fistula, not with a probe, but with a probe-pointed bistoury, and having ascertained that it was a simple uncomplicated fistula he completed the examination by dividing the sphincter as he withdrew the instrument. On recovering from the momentary pang caused

by the incision, the gentleman inquired of Mr. Bell when it would be convenient for him to perform the operation? The answer was, "It is already done."

Systematic writers on Surgical Anatomy and Operative Surgery usually devote a considerable section of their works to what they term "simple operations," practiced indifferently on all or nearly all parts of the body; such as division, cauterization, compression, dilatation, extraction, reduction, reunion, &c. But it seems to me superfluous to speak of such operations at any length. The student can only acquire a knowledge of them by seeing them put in practice by others, and by practicing them himself. The reunion of divided parts by needles, stitches, adhesive and other plasters; the reduction of dislocations; the extraction of foreign bodies; dilatation by means of the fingers or by instruments; the application of the heated iron; compression by bandages; and division with the knife or the scissors, constitute nearly the whole of the surgeon's manipulative education. Should he neglect practicing it on the dead, he will have to learn it on the living; sometimes at his own cost, sometimes at that of his patients.

In the selection of instruments the young surgeon should follow the example of the best operators of the day, selecting the form they prefer. Let him remember always that an operation is not a dissection, but a series of incisions and steps taken agreeable to a plan previously laid down towards accomplishing a clearly understood object. Where the fingers can be used, they are preferred to knives or forceps. Never press on inflamed or suppurating parts, lest the pressure cause sloughing. To employ caustics advantageously merely requires judgment and a little dexterity. Rust, of Vienna, made the actual cautery fashionable for a time, and with Baron Larrey the moxa was a universal remedy. A sounder pathology has greatly diminished the frequency of appeal to these violent remedies. Nevertheless they are of easy application, and prove sometimes successful.

Hemorrhage is the accident which the surgeon most dreads, whether occurring in consequence of accidental wounds, or caused by operations. In whatever way it happens, the surgeon must look carefully to it, and ascertain its source. Be in no hurry, but lose no time. If the bleeding come from a vessel of any appreciable size, seize it carefully and steadily with the forceps used in dissection, and request an assistant to place a ligature around the vessel, *clear of the points of the forceps*. If the bleeding come from a vessel or vessels which cannot be discovered, the surface may be exposed for some time to the air, or

moistened with cold water and vinegar, or a thin linen rag dipped in these and kept moist, may be laid on the part. Occasionally simple pressure applied for a time by the fingers of an assistant will arrest a hemorrhage; the elevation of the limb, should the bleeding occur there, is at times very successful. Other means for arresting hemorrhage occurring from the division of small vessels have been recommended, such as torsion or twisting, which may be done with the common forceps, touching the part with lunar caustic, applying turpentine, tincture of the muriate of iron, &c. I have followed Mr. Abernethy's mode of treating certain hemorrhages with marked success.

Case 5.—Of the French wounded on the 18th of June, 1815, some were brought into Brussels, and placed in churches and barracks, used temporarily as hospitals. The hospital called *Gendarmerie* was at first filled wholly with the French wounded. The wards of the 1st Division fell to my charge. In one of the adjoining wards a staff-surgeon, searching for secondary sequestra of the thigh bone consequent on gun-shot fractures, divided with the knife some large branches of the external circumflex artery of the thigh. He left the patient in charge of an assistant, directing him merely to apply pressure to the part. In a short time a message came from the assistant to say that the hemorrhage could not be controlled. The staff-surgeon requested me to see what was the matter. It was this: the assistant, alarmed, had piled lint and cloths alternately over the wound, and over these a tourniquet, and the larger the pile of rags grew the hemorrhage increased the more. Knowing, from what Mr. Abernethy had told me, that such ineffectual efforts to restrain hemorrhage merely add to its strength, I removed all the dressings, bandages, &c., exposed the surface freely to the air, and thereafter placed over it, loosely a thin linen rag moistened with vinegar, directing the heel to be raised, and the patient to be let alone. The hemorrhage soon ceased, and did not return.

Case 6.—In the terrible hand-to-hand conflicts which took place on the memorable 18th of June between the French and English cavalry, a young soldier of the English received a wound in the parotid region, immediately below the ear. I did not see this brave soldier until about three weeks after the accident, when it fell to my lot to bring to England the first ship-load of those who, though wounded but not yet recovered, had escaped the terrible field. These wounded men, about ninety in number, embarked at Ostend, and were placed ultimately by me in Haslar Hospital. The first object which caught my attention, on gaining the upper deck of the vessel, was this young man. He lay

extended on the deck, pale, exhausted, almost exsanguineous, and seemingly dying. He spoke with difficulty. The wound below the ear had never closed, and it bled daily, so that he could no longer sit upright. As usual, a pile of rags, lint, portions of bandages, &c., steeped in blood, and now hardened, concealed the wound, and kept the danger out of sight. The sergeant, my only assistant, cautioned me not to remove this pile, as he had seen dangerous results repeatedly in this case, whilst on their route from Brussels to Ostend. Regardless of this, I put Mr. Abernethy's plan in force, removed all pressure, exposed the wound to the air, applied a rag loosely to the wound, directing it to be constantly wetted with vinegar, and he rapidly recovered.

In some persons there exists an hemorrhagic constitution, amounting to a serious disease.

Case 7.—A retired officer of the Cape Regiment of Infantry had been for some years subject to this hemorrhagic tendency. The slightest wound of the skin occasioned a considerable loss of blood, which flowed all the more that he continued to wash the wounded part with cold water. I found that pressure with the fingers, employed for but a short time, closed the wound uniformly, and arrested the hemorrhage. This gentleman, I found, was also subject to tapeworm, from which he was relieved by a few doses of turpentine. The combination of these diseases were no doubt merely accidental.

In unhealthy sores, whether originating in wounds or otherwise, great caution is required in the avoiding incisions into such diseased structures.

Case 8.—A soldier in the Royal African Regiment of Infantry had for some time suffered from a corroding, ill-conditioned ulceration of the fingers and back of one of his hands. The surgeon under whose care he was wrote to me to come to headquarters (Graham's Town, South Africa,) to assist him in amputating this hand and another, of which I shall speak afterwards, when considering the effects of gunshot wounds in the hand. On examining the disease, I found that the bones of one finger were carious, and at least contributed to maintain the disease. I recommended, therefore, that instead of amputating in the forearm, the three phalanges of this finger should be removed; but the surgeon, aware of the alarming hemorrhages which had followed all incisions, however slight, made into the semi-putrescent fingers and hand, declined attempting it. Persisting in my opinion, the case was handed over to me, to act as I thought fit. A straight probe-pointed bistoury was passed close to the bone, as high as the lateral ligaments connecting the first phalanx to the meta-

carpal bone, and these ligaments were cautiously divided successively, and the three phalanges withdrawn from the ulcerating mass. No bleeding followed, and the hand recovered under the use of lotions and nitrate of silver.

A lamentable case (9) is recorded in the "Transactions" of the Medico-Chirurgical Society of London, of a young man afflicted with a constitutional hemorrhagic disposition. He had been obliged to have a tooth extracted. Hemorrhage followed, which nothing could arrest, although it is clear to me that this might have been accomplished by the pressure of a child's finger. In an evil hour, an operating surgeon was sent for, instead of a physician. He tied the carotid artery, I need not say what became of the patient. Such cases injure the character of surgery as an art.

In general, the common dissecting-forceps is the best instrument for seizing hold of the divided artery, and securing it until a ligature can be applied, but the surgeon should also be provided with a tenaculum. When the tongue is wounded, for example, by a tooth accidentally driven into it, the closeness of the tissue renders the forceps useless. You must transfix the bleeding orifice of the vessel with the tenaculum, and tie in a small portion of the surrounding texture. The arteries in the palm of the hand are difficult to be secured, and may require the use of a tenaculum. They must be tied where divided, and, if possible, a ligature put upon both orifices, lest the freedom of anastomosis render your single ligature of no avail.

Lastly, when a large trunk, such as the brachial, femoral, &c., has been accidentally punctured or wounded, the vessel must be secured *where wounded*, by placing a ligature above, and another below, the wounded part. In my younger days, surgeons mistook wounded arteries for aneurisms, to the tumor caused by the effused blood they gave the name of traumatic aneurism. One error naturally produces another; they misapplied Mr. Hunter's ingenious treatment of aneurism by employing it in cases of wounded arteries. I denounced this extraordinary practice in my earliest lectures on Anatomy, but it continued to be in vogue for a long time. When the brachial artery was wounded at the bend of the elbow, the hospital surgeons of the day persisted in making another wound higher up, and tying the artery where it was not wounded, but sound. This practice, beneficial only to the student, as it afforded him generally an opportunity of witnessing several operations instead of one, has at last, I believe, been reluctantly abandoned. I am at a loss to comprehend how it ever got a footing amongst surgeons.—*Lancet*, May 17, 1856, p. 535.

2. *Cure of Itch in half an hour by Sulphur in the Liquid Form.*—By Dr. EDWARD SMITH.—[Dr. E. Smith here draws attention to an article by Dr. Bourguignon in confirmation of the value of sulphur, combined with lime, in a liquid form, in the treatment of itch.]

The remedy is prepared by boiling one part of quick-lime with two parts of sublimed sulphur, in ten parts of water, until the two former are perfectly united. During the boiling it must be constantly stirred with a piece of wood, and, when the sulphur and lime have combined, the fluid is to be decanted and kept in a well stopped bottle. A pint of the liquid is sufficient for the cure of several cases. It is sufficient to wash the body well with warm water, and then to rub the liquid into the skin for half an hour. As the fluid evaporates, a layer of sulphur is left upon the skin. During the half hour the *acarus* is killed, and the patient is cured. It is only needful then to wash the body well and to use clean clothes. In Belgium the treatment is introduced by first rubbing the body for half an hour with black soap; but this does not appear to be necessary. The only essential act is that of the careful application of the fluid sulphur. The lime is of no importance in the treatment except to render the sulphur soluble, and such would probably be the case if potass or soda were employed. The chief point in the plan thus employed, which is an improvement upon the mode of application of sulphur in substance with lard, is the more ready absorption of the remedy, and consequently the more certain and quick destruction of the insect, by using sulphur in a liquid form. In so disgusting a disease, it must be of great moment to be able to cure it in half an hour.—*Association Med. Journal*, March 8, 1856, p. 195.

3. *Treatment of Scabies by Sulphuret of Calcium.*—By W. B. KESTEVAN, Esq.—This treatment has been completely successful in every case in which I have tried it. I have not kept an exact record, but should state the number at between thirty and forty. At the parochial institution in which I have had opportunities of putting it in operation, the greatest satisfaction is expressed at getting rid of the old filthy proceeding of inunction with sulphur ointment, and the saturation of blankets, &c., with the greasy mass.

Directly the slightest appearance of scabies manifests itself, I have the part well washed with the solution of sulphur for half an hour, and then left to dry. This proceeding is repeated on the following morning; and at night, or next morning, ablu-

tion with soft soap is performed. It is very rarely that a third application is required; in most cases, the second is unnecessary, but I enforce it in order to make a security doubly sure. When the washing has been thoroughly and effectually performed, the apex of each vesicle appears of an opaque yellowish white color, indicating that the sulphur has penetrated to its contents, and has destroyed the acarus.

So speedy, cleanly, and effectual a method of curing so loathsome a disease, is an immense boon, and cannot be too widely made known. By its means an offensive and often tedious plan of treatment is superseded.

The cases with which I have had to deal, it should be stated, have been nearly all recent; but I am informed by my friend Dr. Fuller, of St. George's Hospital, that he has succeeded by the same plan in curing a case that had long resisted ordinary modes of cure.—*Association Med. Journal*, June 28, 1856, p. 549.

4. *Observations on Anthrax*.—A case of anthrax of unusual size at the back of the neck, fully as round as the top of a hat, gave Mr. Lloyd, at St. Bartholomew's, an occasion this month to make some useful observations to his class on this disease. It is sometimes suggestive, perhaps, to jump, as it were, over thirty or forty years of hospital experience, and find what the differences of practice may be, and what the surgical legends or fashions about the beginning of the present century, and what they are at the present time. Mr. Lloyd, who acted a long series of years with the late Mr. Abernethy, stated that anthrax and boils were almost unknown in Mr. Abernethy's time, but that, of late years, from the importation of much bad corn into England, he is inclined to believe, and perhaps from meteorological causes, anthrax has assumed almost the character of an epidemic. Like Mr. Syme, he thinks anthrax, or carbuncle, to be a circumscribed inflammatory condition of the true skin, attended with considerable constitutional derangement, as well known to most practitioners; Mr. Lloyd disapproves of the stimulating plan of treatment, and prefers salines, with Mindererus, to diminish fever, with large free crucial incision made early in the inflamed part.

The object of the incision is to diminish the inflammatory action which he believes is of a low specific kind, and that by plugging the parts subsequently with lint, this carbuncular inflammation gives way to common healthy inflammation and granulation. He does not advise the external use of either caustic or what are

called warm digestive ointments; they are very old fashioned, and merely protect unnecessarily the period of recovery, and destroy more of the skin than is expedient. In cases of anthrax, as well as in large boils, the evil is exaggerated, Mr. Lloyd believes, by giving patients too much food of a stimulating kind. The core of an anthrax, or boil, is perhaps not so often dead cellular matter, as a new morbid deposit in the pleura, or in, or around joints, and pointing to an inflammatory action going on in the system. Simple milk diet, poultices, salines, and diaphoretics, with free crucial incisions, answer every purpose, with the subsequent exhibition of a light bitter, with iodide of potassium, during the period of convalescence.—*Association Med. Journal*, March 29, 1856, p. 248.

5. *On Urticaria*.—By Professor BUDD.—Nettle-rash may be produced in various ways; but its most frequent cause, and that which especially concerns us at present, is the imperfect digestion of particular articles of food. Amongst the substances that have been observed to bring it on, are shell-fish, especially crabs and muscles, pork-pie, fish, when tainted or out of season, honey mushrooms, cucumbers, almonds and oatmeal. The symptoms are too well known to require notice. The main object of treatment is to expel as soon as possible the offending matter. The stomach should first be emptied by an emetic of ipecacuanha or sulphate of zinc, and the bowels then cleared by a warm but quickly-acting purge. To allay the cutaneous irritation, Dr. Budd is in the habit of prescribing a lotion, made by mixing half a drachm of acetate of lead and half an ounce of tincture of opium with eight ounces of water.

In those cases in which the nettle-rash seems to be referable to several substances in common use, rather than to one special substance, it may sometimes be kept off by the administration (before dinner) of the rhubarb and ipecacuanha pill, or of a few grains of rhubarb. Dr. Budd gives a case which shows very satisfactorily the occasional efficacy of rhubarb in this disorder.

“It sometimes happens (says he,) especially in women, that the nettle-rash, though depending immediately on the stomach, occurs only when digestion is weakened by over-fatigue, or by profuse monthly discharges, and that remedies of a different class are availing. In some such cases, when all the means I have before spoken of had failed, I have known the eruption to disappear under the use of carbonate of ammonia, alone or in conjunction with the tincture of gentian.”—*British and Foreign Med. Rev.*, July, 1856, p. 46.

6. *Skin Diseases*.—Dr. HUGHES BENNETT treats impetigo and eczema by assiduously keeping the parts moist with lint saturated with a solution of half a drachm of sub-carbonate of soda to one pint of water, covering this carefully with oil-silk, to prevent evaporation. Favus he treats with oil, so as to exclude the atmosphere.—*British and Foreign Med. Review*, July, 1856, p. 245.

PRACTICAL MEDICINE AND PATHOLOGY.

1. *Cause of Yellow Fever*.—The following extracts from the published proceedings of the New York Academy of Medicine, contain a summary of the views of Dr. E. H. Barton, of New Orleans, on this interesting subject. Dr. Barton has had the most ample opportunities for observations concerning the cause or causes which originate and propagate the Yellow Fever, and has improved them laboriously and carefully. His opinions are, therefore, entitled to much consideration.

‘*Cause of Yellow Fever*.—There are two conditions necessary to the creation of yellow fever: an elevated temperature and a high dew-point, form the blades of the “shears of fate,” united by miasm and filth. The report of the sanitary commission had stated this fact, and that whenever the dew-point fell to 60°, the fever ceased invariably. The experience of the subsequent years had corroborated this view, both in New Orleans, Savannah, Charleston, &c.

‘The paper which he should read to the Academy was prepared for New Orleans, but it contained some statements, intended for this Academy, in opposition to the views expressed here within the last year.

‘*First*—He should make some *corrections* where he had been misrepresented. He had never said that disturbance of the soil would produce yellow fever.

‘*Second*—He had never stated that a high dew-point was the cause of yellow fever: but that it was the conjunction of these two elements with filth in certain proportions that was the cause. The three elements were necessary.

‘In regard to the report of commission, which had generally been well received by the profession, there was skepticism on two points, the influence of a high dew-point and the necessity of a specific cause, and these points he proceeded to explain.

Here he took notice of statements made a year since to the Academy, by Dr. Stone of New Orleans, whose high position rendered it necessary that these views should be met.

‘The condition of the atmosphere was very important. He had frequently known unacclimated persons, visiting an infected district, to be attacked in two hours when the dew-point was high.

‘I predicted the yellow fever of 1853, in May. The spring was dry, the rainy season being but seven days and seven nights, but in June and August there was much rain; for thirty days and nights it rained, and the dew-point averaged $70\frac{7}{100}$. Yellow fever depends on meteorological changes, and as the dew-point rises and falls this disease varies. A few cases may occur sporadically, but there never will be an epidemic.

‘Dr. S. said that this disease had no relation with intermittents, and that it was more likely to attack localities where miasmatic diseases prevailed. It is charity to suppose that the author has been misreported in this particular, the fact being so directly opposed to this view.

‘He wished to correct one very prevalent idea, that drouth and dryness are synonymous. A hydrometer is the only test of this atmospheric condition. Rapid rains deplete the air and leave it dryer than before. Sandy soils absorb it, while clayey ones retain it, and the air is, consequently, correspondingly more or less dry. It is well known that foggy weather is generally without rain, yet no one would pretend that the air was not laden with moisture. Humidity is a necessary constituent in many diseases, as cholera, cholera infantum, sun-stroke, &c.

‘Wherever yellow fever occurs in any place for the first time, it is always accompanied by marked atmospheric changes; the changes are noted at its departure, and these show how futile are the terms indigenous, imported and the like. A few cases may occur after a frost, but there is no epidemic. So we see cholera occurring in cold weather, and even in Russia, where the thermometer is near zero; but it is forgotten that this is the outdoor temperature, where the disease actually occurs, is about 80° , or summer heat. The seasons when yellow fever is rife in New Orleans, are peculiarly damp. The city is always damp. Goods spoil kept in our stores one year, and flour frequently in a few hours; for notwithstanding the peculiar dampness of our city little or no efforts have been made in the construction of our warehouses to counteract it. The dampness however, of itself, be it remembered, will not cause yellow fever, if the other elements of high temperature and filth be not added.

[“The Doctor then went on to speak of the manner in which this disease attacks a neighborhood, and particularly in the case of the *Ben Franklin*, which, it is alleged, carried the yellow fever to Norfolk, but which he said was not the case.”]

‘It is the fault of the City Authorities if Yellow Fever invades a City!’ The disease is entirely in their hands, and they may have it or not, as they wish. The “shears of fate” which is to cut the thread of their lives is formed, as I have said, of two blades. The one is high temperature, the other a high dew-point. But the rivet of these shears, without which they cannot act, is filth. The authorities can so drain the city and so thoroughly cleanse it, that one blade will be dulled, and the rivet may entirely be wanting.

‘Millions for Cure, but not a Cent for Prevention,’ seems to be the motto of our city authorities. Faith is the electric spark which fires the other elements. Typhus, small-pox, yellow fever, measles, and many other diseases, as well as all intermittents, may be, in my opinion, generated without foreign importation. A study of meteorology was absolutely necessary for the safety of a city. Notwithstanding the proximity of government institutions to the infected region around Norfolk, no such observations were made, and in some places where this was supposed to be done they were made at a distance of a mile from the location where the disease raged, upon a hill, or in a healthy locality. The reports, therefore, were not the reports of the infected locality, but of a proximate healthy one, and a comparison would show a marked difference.

‘Dr. Clark hoped, if the vote was taken, it might again be taken after the discussion of the subject.

‘Dr. Isaac Wood thought it unwise to vote on this question, as he doubted if the members of the Academy generally were able to vote understandingly.

‘Dr. Griscom desired further light upon it before voting, and would, therefore, request Prof. David B. Reid, of Edinburgh, Scotland, whom he saw present (the distinguished chemist, well known for his scientific sanitary reports, made to the British Government; who arranged the ventilating apparatus of the New Houses of Parliament, &c.,) to state to the Academy his views respecting the influence of dampness in producing disease.

‘Prof. Reid, in responding, said he had seen little of the relation of dampness to yellow fever, but he had in Scotland, England, France, Russia, &c., noted many relations between moisture and disease generally. He had never in his life listened with so great interest and delight to any paper as to the erudite

one of this evening. He had had much to do with ventilating old buildings in London; in draining sunken places, where the drains and air-tubes had to be carried down through the remains of the old Roman walls; ships from China; the Houses of Parliament, and especially the worst part of London, the Old Bailey. Lime, in large quantities, he had found to entirely destroy all dampness. He was not prepared to hear of the low temperature of New Orleans. He had, indeed, seen great cold in London immediately after a storm. Fever, he said, was invariably arrested by the withdrawal of moisture, to be effected in three ways: either by a high temperature drying it up, a low temperature condensing it, or by chemically withdrawing it. The difference of moisture he had personally noticed in his late residence in London, where, in the upper stories, meat would keep pure for several days, when near the ground two or three hours only would be necessary to materially change it.—*N. Y. Journal of Medicine.*

2. *Glycerine in Phthisis.*—Some of our correspondents have written, requesting us to state *how* we use the glycerine in the treatment of consumption; and as it is almost impossible to find time to answer all the letters addressed to us, we will give the following formulæ. For cases of tubercular disease in its early stage, before the cough is accompanied by much expectoration, we more frequently prescribe:—

Ry. Glycerine ʒij.
Iodide of Potassa ʒj.
Sulph. of Morphine 2grs. Mix, and

give one teaspoonful before each meal and at bed-time.

If the disease is further advanced and expectoration more copious, with rapidly-increasing emaciation, we prefer the following:—

Ry. Glycerine ʒij.
Syrup of Iodide of Iron ʒss.
Sulph. Morphine 2grs. Mix, and

give one teaspoonful every four or six hours.

It is now two years since we commenced using the glycerine in the treatment of phthisis, generally combining it with some preparation of iodine, and just enough morphine to allay cough and promote rest; and we have certainly derived more benefit from it than from any other one remedy.—*N. W. Med. and Surg. Journal.*

3. *Prurigo.*—During the past few months, three cases of

Prurigo formicans have been admitted into the Mercy Hospital. The disease affected chiefly the whole posterior part of the trunk and the arms. It had existed several weeks before admission, and was attended, as usual, with itching so intolerable as to deprive the patients of sleep during most of the night.

These cases were treated with Fowler's Solution of Arsenic, from six to ten drops three times a-day, and an occasional laxative internally. At the same time the following ointment was freely applied to the surface each morning and evening:—

R. Iodide of Potassa ʒss.
Simple Cerate ʒiv. Mix very

thoroughly.

The patients were discharged apparently quite well, at times varying from one to two weeks. The relief seemed to be derived chiefly from the external application of the ointment, which certainly acted more promptly and beneficially than any other local application that had been used in other cases.

4. *On Nux Vomica in Constipation.*—By J. H. HOUGHTON, M.D., Dudley.—Authorities are very silent on the peculiar property of the nux vomica which I am now discussing. The last edition of “The Pharmacopœia Londinensis” dismisses the whole matter in these laconic words: “Use—in some cases of paralysis.”

Pereira does not allude to it, though he speaks of the efficacy of the drug in “dyspepsia, pyrosis, and some forms of dysentery.”

Dr. Copland, whose mind seems to have embraced almost every thing in medical science, says, “In cases apparently depending on deficient tone of the muscular coat of the large bowels, and imperfect propelling power of the upper part of the rectum, I have seen benefit from combining the extract of nux vomica with the pilula aloes c. myrrhá or compound extract of colocynth.”

Dr. Neligan, in his excellent treatise ‘On the Uses and modes of Administration of Medicines,’ observes: “I have used the extract of nux vomica with much advantage, as an addition to purgatives in constipation depending on want of tone in the muscular coat of the large intestines, one of the most frequent causes of this state in females, and one which is distinctly characterised by great secretion of flatus, and colicky pains which accompany it.”

So far as I have been able to learn, we are indebted to Magendie for the first suggestions on the powers of nux vomica. In

1845, Dr. Tussier, of Lyons, published a paper which was quoted in 'The Lancet,' and which he says that "he considers it particularly indicated in cases where there is reason to suspect general want of tone in the bowels, as in paralytic and old persons, or where we suspect want of tone of the muscular coat, in consequence of great and long-continued distention; or, in short, where the constipation can be referred to an undue secretion of gas, which in itself, by causing distention of the bowels, diminishes their contractile power."

In the Journal of this association for May, 1848, is an article by Mr. Boulton, of Bath, on the employment of *nux vomica* in habitual constipation, in which he observes: I first tried the extract alone, in half grain doses, two or three times a day, and was disappointed with the result. I was then led to use the extract in combination with aloes, rhubarb and scammony, and was surprised at the result." Mr. Boulton seems to think *that it has the power of increasing* the action of other purgatives; and he says: "Generally speaking, a pill containing three quarters of a grain of Barbadoes aloes, three quarters of a grain of extract of rhubarb, and half a grain of extract of *nux vomica*, taken at bed time, will produce one or two evacuations the next morning." And he continues: "I have prescribed the pill already mentioned for months together, and at the end of that time the effect has been produced as certainly as at first, and no bad consequence has arisen: on the contrary, I think it will be found that, when the medicine is discontinued, the tendency to costiveness will be found to be diminished."

The correspondent of 'The Medical Gazette,' November 10th, 1855, in his Notes on Hospital Therapeutics, has the following admirable remarks on the subject: "Among the conditions over which *nux vomica*, and its active principle, strychnia, possess most useful powers, is that of habitual constipation from muscular atony of the intestinal tube. At the City Hospital for the Diseases of the Chest, we observe that Dr. Peacock and Dr. Andrew Clark are both in the habit of frequently resorting to it for this purpose. It is generally given in combination with the compound rhubarb pill, and in doses of the extract of from one-sixth to one-half a grain. Of itself it *can scarcely be deemed an aperient*; that is, it does not so much excite peristaltic action as supply tone to the weakened muscular coat, by which it is enabled to reply efficiently to other irritants. Hence the need of combination with aloes, rhubarb, or some similar drug."

Dr. Peacock has mentioned to us a case in which a man of feeble intellect and torpid nervous system generally, had derived

great benefit from its employment. At first, the bowels were obstinately costive, and lavements produced no action ; but since the use of nux vomica they have so far increased in power and susceptibility that simple injections are quite sufficient to procure all the action that is necessary.

With the observations quoted I generally concur, but specially with those of Mr. Boulton and of the correspondent of the "Medical Gazette."

From the facts and opinions adduced I think we may safely infer—

1. That in the nux vomica we have a new agent in the treatment of constipation ; not a purgative or aperient, but a substance which, added to very minute doses of various purgatives and aperients, forms a kind of *tertium quid*, which combines the advantages of purgatives without the disadvantages, which does not leave the bowels debilitated and indisposed to act after its operation, but which on the contrary, imparts tone, rendering their action more certain.

2. That the agent does not lose its power by continued use.

3. That it is a perfectly safe remedy when used in the mode suggested.

4. That it is not an accumulative medicine.—*Assoc. Med. Journal.*

PART IV.

EDITORIAL AND MISCELLANEOUS.

WATCHMAN, WHAT OF THE NIGHT?

The winter is past, and lovely spring, with its flowers and green woods and verdant pastures, is upon us. We forget the past; in the pleasure of the present. But there are records, in which are preserved the occurrences of the past, which speak of events known only to those who made them. Every physician carries about him one of these records. The cases he is called upon to treat are each individualized—he only is the connecting link between these individuals. His labors are only known to himself; each upon whom he is at the time attending is apt to suppose that he of all others, is the only one who claims his attendance. Not so. The past winter has been inclement to a degree unknown in our country; and yet the physician has not faltered in his daily and nightly attendance upon the sick and dying. Others have given up their out-door pursuits in consequence of the severity of the cold; but, whether by day or by night, in the chilling snow-storm or benumbing sleet, he has not hesitated to obey the calls of humanity whenever made upon him. He, therefore, preserves a record of events of which the community knows nothing. What say those records? The extreme cold weather has been productive of some results upon the sanitary condition, and it is befitting to ask what they are. Within the range of our observation, during the prevalence of the cold, pneumonia and pleurisy were the principal diseases, which increased at the ratio of fifty per cent. as the weather moderated, and the snow began to melt. The warm weather which succeeded in this vicinity, produced an unusual number of

cases of inflammation of the brain; in one part our county, there being four fatal cases in twenty-four hours after the beginning of the disease.

There has been less rain, so far as amount in inches at each time is concerned, than is usual at this season; yet the frequent damp and drizzly days, and the frequent and sudden changes in the temperature, have prevented, to a great degree, the usual farming operations. Our water-courses in this section have been subject to no rises of importance. What bearing will these facts have upon the health of the people? Much, every way. With the temperature one day at 76° , and two days afterwards as low as 18° , accompanied with a fall of snow, does it not tend to enervate the body and well fit it for the baneful influence of those diseases of which the summer season is so prolific? We think so; and as a journalist, for health as well as disease, we feel it our duty to urge upon every community the adoption of efficient sanitary regulations at once. There is, around every town and city, and in many portions of the country, fruitful sources of the elements of disease, which only await the return of the summer's sun to unlock them, and send them forth on their mission of death. Even in the depth of winter, we find, at Russellville, Tennessee, a fatal epidemic of typhoid fever prevailing, commencing in a single family, nearly every member of which are prostrated one after another, and radiating thence to every other family in the little village—nearly every case presenting a striking resemblance, and no doubt all attributable to the influence of some local cause. And we hear the mutterings of small-pox and cholera epidemics in India, Southern Europe, Rio Janeiro, and Central America—which forewarn of danger, and urge to the adoption of such regulations. Let the municipal authorities of each village, town and city require all sources of filth to be removed from public places—alleys, court yards, and vacant lots. Let them enjoin it upon every citizen to cleanse and purify his premises by the use of disinfectants, and by the whitewashing of palings and out-houses. We recommend charcoal to be placed in damp cellars, and occasionally taken out and dried, or replaced with a fresh supply. We recommend a solu-

tion of the sulphate of iron to be freely used in all sinks—in the proportion of two pounds to ten gallons of water. It is a more efficacious purifier than any that can be adopted. Lime, so commonly used for this purpose, only disengages the gases, without fixing them. This solution of copperas, liberates and fixes them permanently. Are there standing pools of water? drain them. Are there low flats—open ditches for the free passage of the water and for drainage? All are interested in this matter, and no one should hesitate to act upon it. The severity of the winter, the dampness of the spring, succeeded by the heats of summer, may tell lamentably upon the health of the people.

DR. BLACKMAN—OUR JANUARY NUMBER.

We ask our readers to refer to the January Number of our Journal, and again read our "Article Fourth." The object of that article was to vindicate Dr. Deadrick's claim to priority in performing the operation for exsection of the lower jaw.

Since the reception of the March number of the *Western Lancet* published at Cincinnati, Ohio, by Geo. C. Blackman, M.D., we find we are in error as to one thing. We had expressed our regrets that Dr. Blackman did not possess the information of Dr. Deadrick's case. Doctor B. assures us in a lengthy editorial, that he did know of Dr. Deadrick's case, for in 1852 he also published an article in the *New York Journal of Medicine* vindicating Doctor D's. claims in opposition to those set up by Dupuytren of Paris, but says that his article in the October No. of the *American Journal of Medical Sciences* was intended to present the history of cases in which the *entire* jaw was exsected. Of course if Doctor B. had confined himself exclusively to such cases, he would not have given us the pleasure of preparing our article. But when he says in conclusion of his history, "I might notice in detail the successful operations of Cusack, O'Shaughnessy, Ackley and others in which nearly the whole bone was removed for *osteo-sarcoma*," and leaves out the name

of that surgeon which should be foremost in the list, and to be supposed to be understood as among "the others," we felt called upon as a Journalist to notice the omission.

We do not know Doctor B. personally, and are as ready to award to him the merit due him as a successful operator as any one else. And now that we have been referred to what he has himself written on this subject, we cheerfully insert it here to show to our readers that Doctor B. did possess the desired information.

Although nearly half a century has passed since Dr. Deadrick, of Tennessee, excised a portion of the lower jaw, and though some twenty-one years have elapsed since the publication of its details, in one of the leading medical Journals of this country, we observe that surgical writers are still almost constantly guilty of mis-statements whenever they attempt to give the history of this operation. We believe that no surgeon on the continent of Europe has ever done justice to the claims of Dr. Deadrick, but in Great Britain they have, at last, been most honorably acknowledged. (Vid. SOUTH CHELIUS, vol. iii, p. 745) The profession in this country have seen with surprise the attempt lately made by an *American Professor of surgery* to surrender the honor so justly due to *American surgery*. We think this *Professor* would blush to own his ignorance of the existence of such a publication as the "*American Medical Recorder*," and we know not what apology he can offer for the erroneous statements contained in the following extract from his report of an operation which he performed, for the removal of the *entire* lower jaw, published in the January number of the *New York Journal of Medicine*:

"To Dupuytren was reserved the glory of having, in 1812, first removed, by a methodical operation, a portion of the inferior maxilla; *but since the innovation of the celebrated French surgeon*, (the italics are our own,) the operation for the partial exsection of this bone has been repeatedly performed."

Now, we would respectfully ask the author of the above, why was not the operation of Dr. Deadrick, in 1810, "a methodical operation?" *Perhaps*, however Prof. Carnochan has never seen Dr. Deadrick's report of it in the *American Medical Recorder* for July, 1823, vol. vi. p. 516; and for his benefit, as well as for those who are denied the privilege of consulting the pages of that journal, we will insert in this place that portion of it which is descriptive of the operation. The disease for which it was performed had invaded almost entirely the left side of the inferior maxillary bone. Internally it occupied nearly the whole of the mouth, and for three weeks previously, the patient experienced great difficulty in swallowing, and occasionally was almost suffocated during sleep. Externally the tumor had the appearance of a wen of considerable size, &c., &c. The account of the operation we give in his own words:

"An incision was commenced under the zygomatic process, and continued on the tumor, in the direction of the bone, to nearly an inch beyond the centre of the chin. A second incision was begun about midway, at right angles with the first, and extending a short distance down the neck. The integuments were now separated from their connection with the tumor, &c., and the bone was sawed off immediately at the angle and centre of the chin. I saw nothing of the parotid or sub-maxillary glands; they probably shared the fate of the teeth. [Dr. D. states in another part of his paper that he presumed the pressure of the tumor occasioned their absorption.] The wound was united in the usual manner, and the boy had a speedy and happy recovery. The tumor was cartilaginous, and on being cut exhibited a surface as white and smooth as polished ivory."

Thirteen years afterwards this patient was in excellent health. This certainly looks very much like "a methodical operation," and one would have supposed that, with such facts within his reach, an American Professor would have been slow to yield to a foreigner the credit so justly due to one of his own countrymen. That Dr. Deadrick is entitled to this credit will be more apparent after perusing the account of Dupuytren's first operation. We believed that the earliest notice of this is to be found in the *Thesis* sustained by Lisfranc on the 26th Aug., 1813, before the Faculty of Medicine in Paris. The 29th vol. of the "*Dic. des Scien. Med.*" was published in 1818, and at page 422 may be found an extract descriptive of the operation taken from the above *Thesis*, by F. Ribes, to whom was entrusted the article on the "*Machoire.*" The details given by Lisfranc, who was present at the operation, in his *Thesis* and in his "*Precis de Médecine Opératoire,*" vol. ii. p. 419, as well as that contained in the "*Leçons Orales,*" vol. iv. p. 628, differ in no material respect from the statements made by Dupuytren in a Clinical lecture "On Amputation and Resection of the Lower Jaw," delivered at the *Hôtel Dieu* during the session of 1833. This lecture was revised by the Baron himself previous to its publication in the *London Lancet* for 1833, '34, vol. i. p. 56. As its accuracy, therefore, cannot be questioned, we hesitate not to quote from it, premising, however, that the disease which gave rise to the necessity for the operation was of a cancerous nature.

"An incision was now made through the middle of the lip nearly down to the os hyoides; the two flaps were then dissected off on either side from the tumor; the labial arteries, lying in the substance of the muscles, were easily avoided, and the flaps being held on one side by an assistant, room was obtained to divide the periosteum. When the bone was sufficiently exposed, it was divided on either side with a common saw, at about an inch from its angles. Up to this period of the operation only a few drops of blood were lost; but when the muscles attached to the genoid process, and along the mylo-hyoiden line, were divided by a curved knife, certain arteries, which had become enlarged in consequence of the disease cut through; however the hemorrhage was not so violent as we had expected; the fingers of the

operator and an assistant, placed on the submental and lingual branches, suspended the effusion of blood, and the carcinomatous tumor with the bone was removed. The parts removed weighed a pound and a half, the bone was affected with exostosis, caries, necrosis, and was softened in several places. Twenty-one years afterwards the patient (M. Lesier) was in good health."

Why this, more than that of Dr. Deadrick, was "a methodical operation," we confess our inability to discover. As such it (Dr. D's.) is acknowledged by British writers on surgery, as the following observations of Mr. Smith, *Op. Cit.*, 745, will prove.

"As will be presently seen, Deadrick, was the first who, in 1810, cut away the side of the lower jaw," &c. ; and again, at page 748, he remarks: "Deadrick, of Rogersville, Tennessee, is justly entitled to the merit of having first, in 1810, amputated a portion of the jaw of a child of fourteen, who had a tumor occupying the left side of the lower jaw."

Mr. Stanley, in his *Treatise on the Diseases of the Bones*, p. 278, (Lond ed.) remarks, that Mr. Anthony White, in 1804, excised a part of the lower jaw, and Mr. Samuel Cooper, in his *Dictionary of Surgery*, alludes to the same operation. In consequence of this Mr. South was induced to inquire of Mr. White himself the particulars of his case, from which it appears his operation was not performed in 1804, but in 1816. (*Op. Cit.*, vol. ii. p. 750.) This case in which the jaw was removed from the articulation, in its nature and result, corresponds more nearly with one of the cases in which the writer has disarticulated than any we have found on record.

Baron Percy, removed a portion of the lower jaw, affected with caries, some time during the latter part of the last century. That it was not, however, properly "a methodical operation," the following extract, we think, exclusively shows:

"De 1779 à 1784, Percy fit avec succès plusieurs opérations nettes et hardies. Il emporta presque tout le centre d'une machoire inférieure cariée, et dans ce grand delabrement il ménagea à la plupart des dents, flottantes et sans appui, les moyens de se consolider; bien que dépourvues d'alvéoles et de vaisseaux; et aux parties molles, convenablement rapprochées, les moyens de reprendre leur forme et en quelque façon, leur consistance première. Un mois suffit pour réparer ces ruines; tant sont promptes les ressources de la vie lorsqu' elle les déploie avec liberté!" (*Hist. des Memb. de l' Acad. de Med. ou Recueil des Eloges. Eloge de M. le Baron Percy, par E. Pariset, tom. prem. p. 282.*)

In 1818, we learn from the *Leçons Orales*, vol. iv. p. 669, that Baron Percy proposed to resect the ends of the bone in a case of ununited fracture of the lower jaw, but as the case presented some peculiar difficulties, he transferred it to Dupuytren.

If we go back to the last century we find that an American surgeon Mr. WALKER, in 1760, removed for necrosis the entire lower jaw except the chin. Some particulars of this case may be found in the

Mem. de l'Acad. Roy. de Chir. tom. v. p. 366. The parts removed were placed in the possession of Mr. Else surgeon of St. Thomas's Hospital, London, who forwarded them to M. Chopart, in Paris.

We do not claim for this the title of "a methodical operation" in the modern acceptation of the term, the first of the kind having been performed, as we think we have conclusively shown, by Dr. Deadrick, in 1810, two years before that of the celebrated French surgeon. The following *panegyric*, therefore *with a change of names only*, applies more properly to *another*!

"Quel nom donner à l'homme auquel l'humanité est redevable d'un si grand bienfait? Or batons nous de la proclamer hautement ici, à la gloire de la chirurgie Française (*Americaine*)! C'est en France (*Tennessee*,) c'est à Paris (*Rogersville*,) par notre célèbre professeur M. Dupuytren (*Dr. Deadrick*,) qu' a été conçue et exécutée pour la première fois, en 1812 (1810,) cette admirable operation." (*Lec. Oral.* tom. iv. e. 669.)

Having substantiated the claim of American Surgery to "the glory" of *priority* in exsecting, by "a methodical operation," a *portion* of the lower jaw, let us now examine some of the recorded facts which relate to the amputation of the *entire* inferior maxilla.

We make to Doctor B. our *politest* bow, and tender our *deepest* regrets for "our ignorance" of his previous productions. We are sorry that we were instrumental in "arousing the emotions" of his bosom, but as we have performed the duty which we think due to Doctor B. to publish his vindication of Doctor D's. claim to priority, and to correct our error, we dismiss the subject.

MEDICAL GOSSIP.

— *The following choice bit of Legislation* we culled a short time since from an old paper. Suffice it to say, it was the Tennessee Legislature, and in the year 1856. In law, in theology, in all the trades and arts of life, we pay due deference to those who devote special attention to these subjects. But in medicine every one feels competent to cure disease, and to advance an opinion on medical subjects. Does not this arise from the fact that medicine is the only profession around which the ægis of the law is not thrown? We mean, before the lawyer is regarded competent to practice at the courts of the country, he must appear before the bench of Judges and there undergo an

examination, and if found qualified, he is accordingly *licensed* to practice in the State where he applies. If a merchant or druggist wishes to deal in the wares belonging to their respective departments, he must first pay for a town, county and state license—and there are restrictions thrown around them which confine them to the legitimate business upon which they have entered. Though this does not prevent “tricks in trade,” yet it preserves a regularity in commercial transactions, which is productive of good. So we believe there ought to be a Board of Medical Examiners appointed in every State—in some, such Boards exist and result in good—whose duty it shall be to issue certificates of qualification to all new practitioners, before they can enter upon the practice of their profession. Such certificates should not be based upon any inherent value which a Diploma from a medical school may be supposed to possess, but upon the merits of the applicant himself, and such certificates should possess as great importance as a Diploma. If any one should presume to practice without such license, he should not be permitted to collect at law any account made for medical services, and should be held responsible for all evidences of malpractice, or for failing to obtain such license, a fine should be imposed upon him as in other transactions. The truly meritorious would not object to this measure, only those who would fear the result of such an examination. Such a Board of censors for Tennessee should be composed of not less than four nor more than seven physicians in the three grand divisions of the State, who are acknowledged to be eminent for their medical attainments. They should be in no way connected with any medical school. They should possess the same powers and enjoy the same privileges as the Board of Examiners for the Navy and for the Army. Their decision should be final for that time. We believe this would give quackery a death blow in Tennessee, and in every State where adopted. Said Examiners should be required to assemble at such places and times, as may be agreed upon, at least twice annually, due notice being given that all applicants for license may be present. In case of removal from one State to another, the physician should be required to bring evidence of professional

attainments, on which a special examination may be had by a majority of the examiners. For such examinations and licenses, a fee, regulated by law, should be imposed upon each successful applicant.

But to the morceau:—

Dr. Gleaves' bill, to create Boards of Medical Examiners for the State of Tennessee, and promote Medical Sciences, and for other purposes, &c—[the Legislature to elect three Boards, to pass upon the qualification of medical practitioners, &c.—] coming up—

Dr. Gleaves made a speech on the whole premises, closing by offering a provision, that the bill shall not affect the business of any physician who has been engaged regularly in the practice for five years, which was adopted.

Mr. Runnels. Did the gentleman intend his bill to apply to any particular class of doctors?

Dr. Gleaves intended it should include and apply to every man proposing to practice medicine in the State of Tennessee, let him belong to what school he may.

Mr. Runnels. Herein was the absurdity of the gentleman's bill. What physician of the school of Homœopathy or Hydropathy, &c., would allow himself to go before an Allopathic Board to be examined? Was it not plain that the gentleman's bill proposed to establish by law a certain school of medicine, to the exclusion of every other school; and this, whilst it was true, that the healing art was still unsettled as a system, and when there was controversy in all the schools. Pass this bill, and we would have the lancet and calomel, world without end.

Dr. Gleaves rejoined. He asked the gentleman what he understood by the fundamental principles of medical science.

Mr. Runnels. The fundamentals of the medical practice of the gentleman's school he understood to be—to examine the patients pulse; then his tongue; then apply the lancet; then administer a blue pill; and then—death.

Dr. Gleaves. The answer was as he expected. The gentleman from Rutherford and Bedford had made a speech upon calomel. He was death on mercury. But he had seen some men, who if they had taken mercury in infancy, it might have relieved their nervous irritability and allowed them to grow to a more respectable size. He knew not but that might be the case with the gentleman. Had he taken more mercury he might have been a larger man. He then went on himself to state the fundamental principles in medical science as embraced in Anatomy, Physiology, Chemistry, and the *Materia Medica*; and to reply to the objections taken, and defended the provisions of the bill.

Mr. Runnels was heard again; and the debate became earnest and interesting, and was continued for some time. Mr. R. at length, retaliating the allusion to his personal physique in the following:

"Tom Tit and the Crane struggled hard together ;
And, at the close,
From tips to toes,
The Crane had not a feather."

Mr. Gilbert proposed an amendment, which was adopted proscribing places for the first meetings of the Board of Examiners.

Mr. Carmichael proposed to amend, by adding, That no Roman Catholic Priest shall celebrate the Mass, give Absolution or grant Indulgence, without being first examined by the Governor of the State and declared competent for that service.

Mr. Bullen proposed, That all lawyers, judges and physicians of the State shall pay an annual tax of ten dollars for the exercise of their professional privileges.

But the previous question being demanded and sustained, cut off amendments, and forced the vote on the bill, which was—yeas, 28, nays 37.

— An exchange paper has the following fling at the Medical profession, which we copy, not for any brilliancy of conception it manifests, but simply to give an answer in the way in which such slurs should be answered:

"Credit is given clergymen in notices of *marriages*—why should not notices of *deaths* be equally civil to physicians."

ANSWER.—For the best reasons in the world; physicians are so often baffled in their good intentions to the sick by the *neglect* of nurses, and *officiousness* of friends, and *indiscretion* of relations, that it would be a matter of dispute to whom the *credit* of the death of the patient should be attributed; and in that doubt, the revelation had better not be made.

— "Oh! my father has another patient—I am so glad," said a little girl a few days ago, in our hearing. A laugh was created, of course; when the little innocent, misconstruing it, added, "but I'm sorry for the patient." The double entendre was too good.

— *The Vapor of Amylene*.—This is the name for a new anæsthetic. It is said to produce insensibility more surely and completely than chloroform, and to leave no bad effects. There follows its administration no sickness nor vomiting. It has

— *Prophylaxis of Puerperal Convulsions.*—It is recommended by a French physician to administer quinine and subcarbonate of iron to lying-in women, who are exposed to the contagion of puerperal fever. He prescribes it—eight grains of the former and thirty grains of the latter—daily.

— *Ointment of Iodide of Potash* may be prevented from changing to a brown color, by adding to the lard or to the ointment a few drops of potash lye. This, on the contrary, renders the ointment white and frothy—owing to the saponification which takes place on rubbing the ingredients together. So says the *Chemical Gazette*, of New York.

Ry.	Sulphate of lime	.	.	.	3 parts.	
	Chloride of zinc	.	.	.	1 "	
	Chloride of antimony	.	.	.	1 "	Mix to-

gether.—*Virginia Med. Journal.*

— *Treatment of Boils.*—Dr Winslow, in the *Boston Journal*, gives his practice in the treatment of boils. Many cases occur in which, one after another of these troublesome and painful eruptions came out, and the usual prescription—salts or sarsaparila. Dr. W. says that his practice is *to bleed, and give no medicine.*

+ — *Singular Malformation.*—There is in this vicinity, a singular case of deformity. The lower extremities of a boy now eight years of age, are turned completely round—the heel being before, and the toes behind. There is no patella to either knee; this joint, in fact, bends backward, so that when the child kneels down his lower legs are in front of the body. There seems a defect in all the bones except at the hip joint. He can walk without support.

— At the recent annual session of the Medical Society of Alabama several very valuable papers were read by Drs. Reese, Cabell, Backus, and others.

The following Fellows were elected officers for the ensuing year:

J. C. NOTT, M.D., *President.*
 W. G. MERRIWEATHER, M.D., *1st. Vice. Pres.*
 G. W. FILLS, M.D., *2nd. Vice Pres.*
 W. C. ASHE, M.D., *3rd. Vice Pres.*
 F. A. ROSS, M.D., *Cor. Sec'y.*
 R. MILLER, M.D., *1st. Rec. Sec'y.*
 A. H. SMITH, M.D., *2nd. Rec. Sec'y.*
 W. H. ANDERSON, M.D., *Treasurer.*
 A. F. ALEXANDER, M.D., *Orator.*
 J. M. WILLIAMS, M.D., *Alternate.*

— In the city of Mobile, Ala., there are three Hospitals, well sustained, the Marine, the City and Dr. Lopez's private Hospital.

— *The Ecraseur*, that new instrument invented by Chas-saignac, is not favorably spoken of by Prof. Westmoreland of Atlanta, who is now in Europe. Professor W. witnessed one operation with it in Paris. The case resulted fatally.

— We see that J. B. Lippincott & Co., of Philadelphia, have in press a book entitled *Surgical Cases*, by PAUL F. EVE, M.D., Professor of Surgery, University of Nashville.

— Dr. JEFFRIES WYMAN, the distinguished Professor of Anatomy in Harvard University, sailed from Gloucester, Massachusetts, recently, for Parimaribo, in Dutch Guiana. He intends spending about six months in scientific researches into the natural history of Surinam. Two students in Harvard University—Mr. Green, of Worcester, and Mr. Bancroft, of New York, eldest son of Mr. Bancroft the historian—accompany Dr. Wyman.

OBITUARY RECORD.

DR. ELISHA KENT KANE.

Died, at Havana, on February the 16th, Dr. ELISHA KENT KANE, late commander of the Arctic Exploring Expedition.

We thank the fair authoress for the following

LINES,

Occasioned by the death of Dr. E. K. Kane.

BY MRS. W. T. HELMS.

In life, his spirit claimed from toil no rest;
 Hot wastes, green isles afar his feet have prest.—
 Brazillian shore, and Afric's burning plain,
 Where man and beast, alike blood-thirsty, reign,
 The Nile's soft bosom—enamored ling'ers there,
 The silent, dreamy, incense-breathing air,
 Half-buried tombs of Mighty Ages past—
 Time-ruined columns, cloud-like shadows cast
 Far o'er the pale—the awe-inspiring sand;
 Whose presence there, hath baffled research grand
 Of philosophic Antiquarian Band,—
 Mysterious pall, beneath whose folds are laid
 "Dead Empires," emblems of power long decayed,
 The moonlight's seeming glory crowning all—
 There, surrend'ring only at the call

Of scenes as fair, have passed beneath his eye
As panoramic views in quick succession fly!

Soon moved by impulse warm—desire insatiate
To solve the doubt o'er-hanging Franklin's fate,
Through fogs impervious to the Polar Star,
O'er unknown seas his compass followed far!
Beleaguered there by fiends importunate—
Disease, and Cold, and Famine!—direful strait!
He fled o'er fields of ice! but leaving there,
A trophy for the 'vengeful Polar air,
Vitality!—*yet lived the while*, to muse
Upon life's voyage o'er!—the farewell cruise!

He, o'er our land, a light to science rose,
That dimmed not in his mortal life's calm close.—
That lingering, sheds a certain, steady ray,
To point where rocks and isles of quicksand lay.

Enfranchised, plumed for his immortal flight,
Now may his spirit wing through realms of light
From sphere to sphere 'till gleams upon his sight
Some Paradisean isle, whose genial shore
Shall teach his earth-taught wings to roam no more!

And "men of letters"—doctors, sages, all
Will keep his name from cold oblivion's pall!
Truths gleamed through toil in Science, favorite field—
New truths, destined a future potency to wield—
Each scroll whereon hath shone his master-mind,
Each record of his fruitful wand'rings, bind
Unto the Nation's glit'ring treasure-lore,
Nor mildew of neglect, let future years deplore.

DR. GEORGE M. SNEED,

Formerly of Murfreesborough, died a few days since, in Texas, where he has been residing for the past six or seven years. He was a man of superior talents, and many good qualities of heart. Dr. Sneed was a brother to Hon. William H. Sneed, the distinguished representative of this District in Congress.

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CURREY'S GEOLOGY OF TENNESSEE.

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**A Description of its Geological Formations, Mineral Resources, Agricultural Geology and Palæontology.**

By RICHARD O. CURREY, A.M., M.D.

*To consist of 144 octavo pages, accompanied with a large Map, representing the Geology of the State.*

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PART I.
ORIGINAL MEMOIRS AND CASES.

ART. XXVIII.—*A Sketch of the Geology of Tennessee.* By RICHARD O. CURREY,
M.D. Knoxville, Tenn.

Minerals of West Tennessee.—The *Iron deposits* are also found to pass beyond the Tennessee river and afford excellent banks in Benton and Decatur.

The *green-sand* or *marl*, which mark the geological character of McNairy, Hardin, Hardeman, Henderson and part of Madison counties, consists according to an analysis made by Dr. Troost in 1843, of

Silica	48.00
Alumina	7.00
Protoxide of iron	20.70
Potash	10.10
Carbonate of lime	5.70
Water	8.00
Loss	50
	100.00

The thickness of these beds is supposed to be nearly three hundred feet.

Hydraulic limestone is found in Hardin and Decatur counties, the stratum being about sixty feet thick. It is of a light blue color, and in horizontal layers.

Lignite, an impure variety of coal, being of recent origin may be naturally supposed to occur in the *bottoms* along the Mississippi river. It is formed by the successive deposits of mud, sand and vegetable matter, during the overflows to which the Mississippi is subject, and is more or less carbonized according to the age and depth of deposit.

White clay, of service in the manufacture of pottery of all qualities, occurs in abundance in all the interior counties of West Tennessee, and may at some day become an important branch of industry. In many localities it will also afford an excellent article for making *fire brick*.

Palæontology of West Tennessee.—The cretaceous formation of West Tennessee is characterized by many interesting fossils. They are of more recent species than any yet noticed, and belong to several genera. Among the Mollusca, we find the *Ostreas*, the *Gryphea*, the *Exogyra*, the *Hamites* and *Baculites*; and among the Crustacea, the *Calymena* and *Asaphus*, besides several species of Zoophytes.

I have now traversed the State in its entire length. It will be seen that it is varied in its physical configuration and in its geological formations. It is also as varied in its climate, and in its agricultural resources. Its fossils we have also seen ascend from the most ancient to those of a modern period—from those long since extinct, to those which have representatives flourishing at the present day.

There remains but one more subject for me to discuss, which I will do briefly in the following chapter.

CHAPTER VIII.

AGRICULTURAL GEOLOGY OF TENNESSEE.

One of the most important benefits which the science of Geology, in connection with chemical analysis, has bestowed upon man, is the development which it has made in its application to agriculture. It is no less true that agriculture is the basis of wealth, than that the agriculturist is the benefactor of his race. What matters it how productive may be the mines of copper and zinc and iron, or how extensive and accessible the beds of coal, if the earth refuses to yield her fruits. The development of our mineral resources will cause the population rapidly to increase, demanding in turn increased productions from the soil for their support. That we have fertile fields, none will doubt; but that these fields will of themselves continue so, none will hardly believe.

The science of Geology is intimately connected with the art of husbandry. It makes us acquainted with the character of soils and the tillage best adapted to each. By reference, therefore, to a truthful geological map of any district, its agricultural capabilities may be clearly inferred. The formation of a soil is owing to the disintegration of the rock strata underlying it.—Therefore if limestone is the prevailing rock, the soil will partake more or less of a calcarous nature; if it is a sandstone, the soil will be sandy, and if shale, it will be clayey. None of these soils, consisting of a simple ingredient, would be productive to any great extent; but a truly fertile soil must be composed of proportions of several mineral ingredients. Hence it is that in those

countries where two formations come together, there we find the soil to possess the greatest fertility. Thus clay and lime would, properly intermingled, afford an exceedingly rich soil.

It is an admitted fact, that lime bears no unimportant part in the productiveness of the soil. Geology teaches us, therefore, from whence this lime is to be obtained, as well as what districts require this fertilizer. This lime may be applied either in the state of phosphate, and obtained from calcined bones—in that of calcined lime and obtained from the limestone rock, or in that of gypsum or sulphate of lime, and obtained from the plaster beds. Soils consist generally of three parts, first a thin stratum of dark mould which is decaying vegetable matter; second a black earth, an intermixture of the vegetable mould with the peculiar soil of the country, and third, an underlying stratum of red or yellow clay. Judicious cultivation mixes the three varieties together, and by preventing an exhaustion of any one ingredient, preserves its fertility. This judicious cultivation consists in a constant rotation of crops, and deep ploughing, with the application of the several manures within our reach.

In an examination of the different portions of Tennessee, there is found as great a variety of soils as she has geological formations. Let us examine each separately.

In East Tennessee the inclined strata of the different limestones, shales and sandstones, afford a rich soil, well adapted for the products of the farm. Composed of a series of valleys and mountain ranges, it is well calculated for the growth of the cereals and grasses, in which a large share of silica is required to perfect the plant in all its parts.

The valleys are very productive, yielding almost with-

out a failure, crops of wheat of excellent grain, while the ridges and mountain sides are capable of supporting a fine pasturage for the maintenance of stock.

The sandy elevated lands of the Cumberland mountains produce fine pastures of grass and are also well adapted for stock raising.

But the truly agricultural region of Tennessee is confined to the central limestone basin of Middle Tennessee and to the Western District.

The central counties of Middle Tennessee possess a soil of a black color, varying in depth from one to three feet, and lying upon a substratum of reddish clay. This soil is a mixture of sand and disintegrated limestone mixed with vegetable mould. These lands for the growth of corn, and blue grass are unsurpassed.

In West Tennessee, unless where the excessive richness of the marl lands prevents a growth of vegetation, the soil is rich and well adapted for cotton and corn. Here we are furnished with a substance for enriching the worn out lands of the other portions of the State. This marl is, in New Jersey, an article of great profit, many farmers having, by means of it, already reclaimed their exhausted fields. It is destined at no distant day to be an important element in the wealth of Tennessee. Contiguous to the silicious stratum of Middle Tennessee, which is generally of a sandy character, by its means the ridges may be brought to a degree of fertility equal to the limestone counties.

East Tennessee is also well situated with respect to the plaster beds of Western Virginia—much of it already finding its way down the Holston.

To sum up, therefore, the wealth of Tennessee consists in the mines of iron, copper and zinc; in her banks of coal

and her strata of marble, in her nitre caves and black slates; in her forests and fields of waving grain; her fruitful valleys and mountain grazing lands; in her marl and hydraulic limestone, and in her innumerable mill-sites along streams of excellent water power. And by means of the lines of railway, which it is hoped will one day connect the divisions of the state together, great facilities will be afforded for the transportation of her varied productions from one part to the other. The cotton of West Tennessee may then be manufactured in the Middle or Eastern Districts, and the iron and glass, the grain and the hemp of the eastern portion, be returned to it.

I regard our agricultural operations as the basis, the solid foundation upon which our national prosperity rests; yet to ensure this, and render them effective, there must be a co-operating agent, and that is the *manufactory*. An agent, working along by the side of the farm, ready to take up the raw material and convert it into a suitable form for use.

I use the term manufactory in its broadest signification—embracing all the mechanical trades—in which the raw material is converted into the forms adapted to the varied purposes of life.

It is the duty of Tennesseans to make use of the great advantages that the God of nature has placed within their hands, and their interest demands that they should themselves work up into that form which is the most valuable and attainable, the bountiful productions of their State.

Take the article of wheat. Why can not as good flour be made within our own limits, as that obtained from abroad? Our wheat crops are generally excellent, and by due attention and the proper management and prepar-

ation of the soil, can be made equal to any in the country. Those mineral ingredients required by a soil to produce wheat crops, exist in our soils, and where defective, we have in our limestone, and in our dense forests, and in sand hills, all that is needed to remedy them. Now what is the advantage gained by producing and manufacturing our own wheat? Simply this: We not only give employment to a greater number of operatives, and thereby increase the demand for food—the productions of the farm, but we are putting every part of the grain to good use. While the cost of transportation of flour is no greater than of the wheat, and while the value is thus increased, we can employ the refuse of the mill to good purpose. The starch thus obtained is valuable, and meets with a ready sale, and the digested bran would be readily fed upon by our stock, and also is valuable as a fertilizer of the soil. Our wheat then is worth more to us in the form of flour than it will command in the grain.

Take our iron. No one would think of transporting the ore, yet how often is it that pig iron and blooms are carried from one part of the country to another for manufacture. It is a heavy article at the best, how much more when mixed with its impurities? Common sense, therefore, would teach us to erect our furnaces and forges just where the metal is found, or as near it as possible. But the rolled or hammered iron is not the most valuable form, for while one pound of it is worth but a trifle, it is capable of being manufactured into a thousand articles, needed in every department of industry, and thus increasing the value of the pound of iron more than one thousand fold. For several years, much of the railroad iron was imported into this country, and yet there are inexhaustible beds of as good ore in Tennessee as can be found in

the world. In the system of manufacturing which we wish to propose, there will be largely needed this valuable boon of Heaven, to prepare the ten thousand spindles, the cranks and levers, the wheels and boilers and machinery, which will be put into operation.

Copper has been found in one county, and zinc in several others. Either of these separately or both combined to form brass, will be valuable. Why not then manufacture them here at home, at the place of deposit?

We might refer to cotton and Indian corn as additional examples. Now, the establishment of these manufactories and mills of every description would have the tendency to arouse the energies of the people, to quicken their inventive genius, to concentrate their capital, and to enhance it, to cause an influx of capitalists and operatives, to create a market for the productions of the farm, and by a reflex influence, the refuse of all such consumption being returned to the soil, to increase its value.

In 1813, when the first factory was established at Lowell, Mass., no one saw in the unsettled pasture and meadow, the future great city and the extensive operations which have raised it to its present pre-eminence. An unprofitable canal around Powtucket falls, was purchased, and the result has been, what the country all know, Lowell made far-famed, and its numerous companies wealthy. Now it is well known that cotton factories require either the erection of several other kinds for producing the materials requisite in their operations, or the connection with them of those several departments. We will merely enumerate these required articles that the reader may see what a system is thereby put into operation.

Thus there is glue, of which a great quantity is needed,

starch and flour, oil, lard, coal, charcoal, and wood, all directly employed in the converting of the raw cotton into thread and cloth. Add to these the large amount of food consumed by the thousand operatives engaged in the business, and are you not ready to believe that there is a great influence exerted by the establishment of manufactories? Thus is the value of land enhanced, and its productiveness increased by the demand. By pursuing such a course, it is obvious what Tennessee might become. Her waste lands would be brought into market; her unproductive farms return four-fold into the laps of their possessors; her mineral wealth appreciated; her hills and her valleys teeming with a busy and thriving population; her mountain streams and rivers made, every drop, to contribute to the wealth of her citizens; the native intellect and energies of her sons would be stimulated, and as development of mind elevates the man in the scale of being, her citizens would be rendered better and happier and more intelligent, and her name be enrolled, for enterprise as it is now for bravery, high on the roll among her sister States. This is what Tennessee must become.

I would, therefore, in the conclusion of this Geological sketch of Tennessee, point to the granite hills in the east, and the rich deposit of ores found there; to the upturned strata of East Tennessee, with her marble, alum and hydraulic lime; her iron, copper and zinc; to the Cumberland mountains, with its rich and inexhaustible banks of iron and coal; to the resources of Middle Tennessee as they exist in her soils, her extensive iron banks, her alum, slate and limestone quarries; and to the marl and clays and fertile soils of West Tennessee as affording ample fields for the investment of capital. Truly may it be said that we have "a good land, a land of brooks of

water, of fountains and depths that spring out of valleys and hills ; a land of wheat, and barley and vines ; a land wherein thou shalt eat bread without scarceness ; a land whose stones are iron, and out of whose hills thou mayest dig brass." These are the treasures of our State and her prosperity is dependent upon their development.

SUPPLEMENT.

Since the foregoing sketch was put to press several facts have been made known to me which are introduced in this place.

MARBLE.

In our sketch I designated the company in which Mr. Sloan was engaged in working the marbles of East Tennessee as the *Ætna Company*. It is the *Sligo Marble and Manufacturing Company*. This company has erected extensive steam works in the vicinity of Knoxville, and near to the Depots, and are running daily four saws, each with a greater or less number of blades. The rock is quarried in immense blocks of several tons, and brought down the E. T. & Va. Railroad from the quarry, a distance of one and a-half miles. They have about fifty men engaged in the works and are producing fine specimens of workmanship.

Near Erin station, five miles west of Knoxville, on the premises of Mrs. Reynolds, another excellent quarry of variegated marble has been opened. Here is also to be found the peculiar variety which we have designated as the *banner marble*. This stratum is but a few hundred yards from the E. T. & Ga. Railroad, and a fine supply of water is afforded in an adjoining creek.

Washington Morgan, Esq., of Calhoun has presented me with a fine polished specimen of black marble from his lands in Monroe county. The specimen is jet black with narrow white lines crossing each other at right angles, the squares being about an inch in diameter. It is without doubt, a continuation of the stratum noticed in the former pages, and which is the property of R. H. Armstrong, Esq., of Knoxville.

LEAD.

J. Winchester, Esq., of Charleston, Tennessee, informs me by letter that he has discovered a fine locality of the argentiferous galena on the Cha-da-tee, a small stream which empties into the Hiwassee, near Charleston. He represents it as an outcrop, and says "it is beautiful—very pure, and occurs in a massive form. In every respect the ore is superior to that of the Wythe mines in Virginia."

Another very fine specimen of argentiferous lead ore has been handed me by Mr. Winston, of the East Tennessee & Virginia Road. It is doubtless from veins of the New Market ores. We can but believe that something yet will be derived from the development of the lead ores of East Tennessee.

LOOKOUT MOUNTAIN.

This mountain overlooking the city of Chattanooga, presents several striking peculiarities.

The strata of limestone in the vicinity of Chattanooga is found to dip, at an increasing angle as we go westward over the upturned edge, to the south-west. It will be remembered that the general stratification of East Tennessee is to the south-east. It is this dip which prevails directly east from this point as we approach Ducktown

mines. At the base of Lookout mountain, as may be noticed in the deep cut along the Railroad, the strata have a gentle dip to the south-east, so that between this point and Chattanooga is a short *synclinal* axis. It is a remarkable peculiarity in the general stratification of East Tennessee. This mountain itself stands as a monument of that mighty convulsion that took place which shook earth's huge pillars to their base. It rises as a towering cliff above the current of the Tennessee, the distance from the tressel work on the Railroad to the summit of the perpendicular cliff of sandstone being about two miles. Coming to a point, the northern extremity of the mountain is almost abrupt, but it gradually widens, as well as loses its altitude as it trends to the south-west. This cliff of sandstone, which caps the summit, is about 100 feet high and can only be scaled through crevices, and by means of slender trees and their roots which have grown into the scanty soil lodged there. The summit once gained, a grander and more imposing view can not be presented. At your feet, almost beneath you, flows the gentle Tennessee, here describing a curve, which, from its striking resemblance, the natives designated as *the moccasin*. There is Chattanooga, further up on the river lies Harrison, and the river itself may be traced out in its very serpentine windings at least 100 miles. The last that is seen of it, an elevated ridge has intercepted to obstruct its continuous view, but just beyond, it reposes like a calm silvery lake surrounded by elevated ridges. To the east rise in succession White Oak mountain, Frog mountain and the Unaka mountains, which are seen ranging to the north-east, as far as the eye can reach.

To the west, and near at hand, lies the Cumberland range, along whose eastern declivity the Tennessee rolls its flood of waters.

The sandstone which caps the mountain lies upon limestone of an oolitic structure, and along its edges and in front presents a bold and abrupt escarpment. From this sandstone doubtless blocks of various sizes have been detached as the soil has washed out beneath, and been precipitated into the vale below. One of these detached blocks lies near the tressel work on Chattanooga creek. It is about 160 feet in circumference, and from the point of the cliff, where it was originally attached, the several spots down the side of the mountain, where it struck as it fell and rebounded, may be readily traced out. The first spot where it struck, after it broke loose from its moorings, was near a spring, some six hundred yards from its bed. Thence it rebounded, striking again two hundred yards below, and so downwards striking and rebounding for five successive times until losing its momentum by opposing objects, it *slided*, ploughing a deep ravine, into its present bed, where it has probably remained for ages. What a terror and crash succeeded its fall! Ages have rolled by since its downward travel, for large trees are growing at each place where it struck and ploughed up the soil.

MINERAL WATERS.

From nearly every geological formation of the State, mineral springs are found to issue. They may be arranged into two different classes—*sulphureous* and *chalybeate*. We present a short sketch of those which have come more especially under our observation. The analyses appended are credited to those who made the examinations, but as a general thing they are imperfect. Many of these springs are fashionable resorts during the sultry summer months, and are supposed to possess medicinal virtues. From

the use of some of them we have known cases of chronic affections to be alleviated, if not permanently cured.

SULPHUREOUS SPRINGS.

These springs are characterized by the peculiar odor of the water, owing to the escape of sulphuretted hydrogen gas which has the odor of rotten eggs. These waters cause black precipitates with solutions of lead, silver, &c. Silver immersed in them soon become tarnished with a dark rusty coat. They also contain several saline substances as sulphate of soda and of magnesia, chloride of sodium and carbonates of soda and of magnesia.

NASHVILLE SULPHUR SPRING.

This noted spring has been a general place of resort from the first settlement of the country. The early pioneers here found herds of Buffalo and Deer which resorted hither to lick the salt left from the evaporation of the water.

It was originally styled the *French Lick*. In a time of scarcity the early pioneer evaporated the water in a rude trough, and gathered up the salt for use. It was represented as possessing a bitter taste, owing to the presence of compounds of magnesia. The water, on first use, acts gently on the bowels, but soon loses its effects. It is used by hundreds daily of the citizens of Nashville, and it is much to be regretted that so valuable a spring cannot be so improved as to prevent its annual submersion beneath the waters of the Cumberland. It is situated in a basin which has evidently been the result of the constant resort to it from remote ages. The basin is surrounded by a dense growth of forest trees which it would

be sacrilege to destroy. The surrounding grounds, below high water mark of the Cumberland, are deposits of recent origin. To this point the wild savage repeatedly came, as near this spring are their mounds and burial grounds. The locality is interesting, historically as well as geologically—for here was the first resting place of the parties who went under General James Robertson, and Col. John Donelson in 1780 to settle the lands of the Cumberland. Here, near this spot in a cedar log cabin, was born in 1781 the veteran physician of Nashville, Dr. Felix Robertson, the only survivor of those days of daring. He has seen Nashville in all its phases—from the log cabin to the marble palace—from the picketed fort to the massive towering capital—from the rude log school-house to the prosperous and thronged University.

The following general analysis was made by Prof. Bowen, formerly of the University of Nashville :

Sulphuretted hydrogen.
Carbonic acid.
Hydrochloric acid.
Sulphuric acid.
Magnesia as a sulphate.
Soda as muriate.

The foregoing analysis, according to our experiments, is thus combined :

Sulphuretted Hydrogen.
Carbonate of magnesia.
Chloride of sodium.
Sulphate of magnesia.

The quantitative analysis has never yet been determined.

SAM'S CREEK SPRINGS, DAVIDSON COUNTY,

According to Dr. Troost, 20 fluid ounces contained—

Sulphuretted hydrogen	8.5 cubic inches.
Carbonic acid	1.5 “

Solid materials, in a gallon, 6 grains, composed of—

Sulphate of lime.
Chloride of sodium.

TYREE'S SPRINGS, SUMNER COUNTY,

According to Dr. Troost, 20 fluid ounces contains—

Sulphuretted hydrogen	3.05 cubic inches.
Carbonic acid	1.10 “

30 grains of solid matter contained—

Sulphate of lime.	
— magnesia.	
Carbonate of lime.	
Chloride of sodium.	

RED SULPHUR SPRINGS, MACON COUNTY,

According to analysis by myself, sp. gr. 1.0004, contains,

Sulphuretted hydrogen.
Carbonic acid.

To a wine pint there were 61 grains of solid matter :

Sulphuret of magnesia	15 grains.
“ lime	8 “
Carbonate of lime	6 “
Chloride of sodium	26 “
Protoxide of sodium	1.5 “
Silica	2.5 “
Loss	2 “
	<hr/> 61

In addition to these, there are also—

Castilian Springs, Sumner county.

Weem's Springs, Hickman county.

White's Creek Springs, Davidson county.

Brown Springs, “ “

Mayfield's Springs, Williamson county.

Beaver Dam Springs, Hickman county.

Hager's Springs, Sumner county.

Terrie's Springs, Rutherford county.

Oliver's Springs, Anderson county, and

Lea's Springs, Grainger county; all of which have gained celebrity as watering places They are all sulphureous, and adapted equally for certain chronic affections.

CHALYBEATE SPRINGS.

In these waters, the principal or controlling ingredient is iron in some one of its forms. They have an inky or styptic taste, and by adding to them a solution of gallic or tannic acid, or an infusion of gall-nuts, they are changed to a dark purple. The proto-salts of iron in these waters are distinguished from the sesqui-salts by the difference in the precipitates afforded with ferrocyanide of potassium. With the former, the proto-salts, this re-agent affords a white precipitate which becomes blue on exposure to the air; while with the latter, the sesqui-salts, gives it at once a blue precipitate, which changes red on adding the sulphocyanide of potassium.

MONTVALE SPRINGS, BLOUNT COUNTY.

Situated at the base of the Chilhowee mountains, 12 miles east of Maryville, in a well-shaded and romantic ravine, this celebrated watering-place attracts more than one thousand persons annually, to enjoy its quiet retreat and indulge its medicinal waters. There are not in Tennessee, more ample and more comfortable arrangements made for accommodating, as well the fashion and the care-worn as the invalid, as are to be found here. Every variety of scenery is presented, to suit all tastes and inclinations. The student or the dejected may here plunge into the dense forest, and spend the hours in silent, unbroken meditation; the adventurous may scale the heights above, emerging, as it were, from a prison-house, and gaze once more upon the world around; the invalid, beneath the cool shades of the grove, can while away the hours in pleasant converse with refined associates, gathered together from all parts of the sunny South; and while

quaffing of the exhilarating waters of the springs, dream of restored health, and a return in renewed vigor to his own hearthstone. Many have thus come, broken down under chronic affections of the stomach, liver and kidneys, and have gone away re-established in health. This is the Saratoga of the South—and in respect to location, efficacy, and the cheerful company found there for the last half-dozen years, is unsurpassed in the State. The following analysis was made by Prof. J. B. Mitchell. One gallon of the water contains—

Chloride of sodium	1.96
Sulphate of soda	4.51
Sulphate of magnesia	12.00
Sulphate of lime	74.21
Carbonate of lime	13.26
Carbonate of iron	2.40
Loss	50
	<hr/>
	108.84

So that it will be seen they are saline as well as chalybeate. Their effect upon the system is cathartic, if taken in excess, but slightly laxative in moderation; at the same time imparting tone to the system, and exciting gentle action of the perspiratory glands, and also the kidneys.

SHELBY CHALYBEATE SPRING, NASHVILLE.

Another saline and chalybeate spring, gushes forth from the east bank of Cumberland river, just at the base of the pier supporting the wire suspension bridge. The water is only accessible at low water in the river. Conveniences, by means of telegraph wires, are made for bringing up the water to the bridge, where hundreds daily resort during the summer, to partake of the cool draught. It is not so strongly chalybeate as to make it unpleasant; and when poured from glass to glass, sparkles from dis-

engaged gas. An analysis of the spring, in 1852, yielded the following ingredients. Temperature of water 61°, air being at 90°:

Carbonic acid gas, free.
Carbonate of iron.
" magnesia.
" lime.
Chloride of sodium.
Sulphate of magnesia.

It acts gently as a diuretic and diaphoretic, at same time imparting tone to the digestive organs.

ART. XXIX.—*Anæsthesia in Parturition*. By Prof. ORREN SMITH, Professor of Obstetrics in the University of Vermont.

This is a subject which is very properly engaging the attention of the medical world at the present time. The novelty and astonishment, consequent upon the discovery and introductory use of anæsthetics, have passed by, and left the observer an opportunity calmly and without bias to watch their action, and test their real utility. And probably the time is not far distant when the profession will assign this class of remedies its proper rank in obstetric practice, and by common custom give them that place in the established therapeutics of our age, to which their merits entitle them; with all necessary rules and cautions for their use, developed from proper and well regulated observation. And until that time shall arrive, when such rules shall be established and acquiesced in by the profession at large, any general or special remarks upon this subject, may be estimated by the professional reader, *pro rata*, without giving just cause for offence. And this subject is not one of such limited capacity, that a few general conclusions of any one man will be taken as an *ultimatum* from which there is no appeal, or review. For when it is proposed to change a regular physiological action into one controlled and governed by therapeutic agents, one which changes the character and chemical conditions of the blood, and controls its circulation; and essentially controls and modifies the amount and tone of muscular contractibility, as found in both

voluntary and involuntary motion, and which converts the whole nervous sensitiveness into insensibility, we may very properly inquire for the utility of these changes—the proper method and manner of making them, and for what causes should they be made.

The object of these changes is to mitigate the sufferings of the parturient, without adding to her danger or doing what may be pernicious to her recovery, or to the existence or welfare of her offspring. It will readily be seen that to discuss this subject in all of its bearings would take a volume instead of a few pages in a periodical; hence only a few general principles can be alluded to in these remarks. It is proper also to observe that labor consists in uterine contraction, and in certain stages contraction of many muscles of voluntary motion also. And that the motor power which enables the uterus to contract, if derived from the sympathetic nerves alone, must be subject to any influence which can control, or be exerted over the sympathetic system of nerves in common. If this is derived from the cerebro-spinal nerves, they are most peculiarly under the influence of anæsthetics. If labor is made up wholly of reflex actions then we must have the agency of the cerebro-spinal system, in nicely balanced nervous influence or power. If all of these positions are combined, we have not carried the contractible tissue involved in parturition, beyond the influence of anæsthetics any more than we can the contractible tissue of the heart and arteries, or the muscles of respiration; and we know how cautiously we watch the pulse and respiration when using the heavy anæsthetics. I believe it is fully admitted that the heart, respiratory muscles, and uterus are all supplied by nerves from both the systems of nerves named, and unless the contractible power which constitutes parturition is derived from some other than the common sources named, I think we must admit a *loss* of contractible power *at least*, when parturition progresses under anæsthesia, unless some counter-balancing advantage can be gained by their use. We see, under the heavy use of anæsthesia, the pulsations of the heart and arteries become softer and slower; the respiration slower and less full, and if so vital organs are permitted to be

restrained or thwarted in their functions by these agents, I can see no good reason for expecting, or claiming an exemption, for those involved in parturition.

We have no standard by which to measure the amount of physical power involved in parturition so as to compare one case with another, or different periods of the same case; therefore one man's assertion that anæsthetics *do*, and another's assertion that they *do not* diminish the force of uterine contractions, are to be taken as mere evidences of opinion, resulting from such observation and investigation as they may have given the subject or become acquainted with. Those who claim that anæsthetics *do not* diminish the force of uterine contractions, if I rightly understand their positions, usually claim that such is the fact, because they think the time involved in labor is not prolonged, which in some cases may apparently be the case; but if so, I think the fact can be explained, and still admit diminished force of muscular contraction, which I have no hesitancy in believing is the fact; and especially when under the influence of anæsthetics we find the aid of the voluntary muscles withheld, by the use of the agent. If these were the whole premises involved, it is very clear that anæsthetics must retard labor and prolong the time of parturition. But fortunately for the use of the agents, other premises are often involved. For instance, where there is a proper want of dilatation of the os uteri, vagina or perineum, which is retarding labor, the anæsthetics serve, very materially, by relaxing the muscular tissues above named, and thereby taking away their strength and power of resistance to render them passive instead of resistant organs, and thereby requiring less uterine force to propel the foetus through the maternal organs. Again, there may be a morbid sensibility of the maternal organs, as is well known to accoucheurs, which induces the patient to offer all the resistance which she can by posture and other means, to protect herself from the intensity of her suffering at the time. This morbid sensibility, whether arising from inflammatory action or being simply exalted sensibility, is amenable to the action of the class of remedies of which I am speaking. Modern practice has also sanctioned their use in puerperal convulsions, to a certain ex-

tent; and particularly in cases of a nervous character, and if the effect of this class of remedies is as I have indicated, their effect in cases of the graver species of convulsions is not so far contra-indicated as may have been supposed. In turning, also, we find the operation greatly facilitated by the quiet produced from anæsthetics, and freeing the patient from the suffering which must otherwise result from the operation; the operation is less liable to be accompanied with disastrous results, when we have the violence of the labor, and muscular contraction, controlled as recommended. Instrumental operations, of the formidable or more difficult and painful kind, should also be performed under the use of anæsthetics, both for the comfort and convenience of manipulations; and also for the power which they possess of lessening the shock to the nervous system, which must, more or less, follow any inordinate action upon the human system. Again, the desire of the patient to inhale anæsthetics, especially where there is much fear, or dread of the pains of labor, may be deemed a sufficient cause for their use when we reflect how much labor is controlled by mental emotions.

In the discussion of the mooted question of the propriety of the general and indiscriminate use of anæsthetics in labor I do not choose to mingle, preferring rather to attempt pointing out those reasons for their use, which are tangible and demonstrable, and leave disputed grounds to be settled by time and investigation. In many of our large cities we can find practitioners who have used anæsthetics until they have established rules for their use which are satisfactory to themselves; but unfortunately those who have been familiar with the use, and are reputed competent to decide what should, and what should not, be deemed a proper use, do not agree; hence a compilation of such facts and principles as can be generally acquiesced in, is valuable to that large portion of medical practitioners who have not accustomed themselves to the use. All medical history shows that the ardor and enthusiasm, which has hailed the discovery of every new medicine, or principle, of more than ordinary interest, or value, has led its friends and votaries into excesses, in its use and expectation, which has disappointed the public mind; and

the discovery has been for a time driven back beyond its merits. Whether this shall be the case with anæsthetics in parturition, remains to be seen ; though to the credit of the medical public, it can be said, they have manifested much caution in endorsing and using this class of medicines ; some through a doubt of the propriety of bringing a physiological condition of the system into one controlled by therapeutic agents ; some through a belief that its action prolongs labor by suspending a portion of the contractile force of the muscular tissues involved—in the same manner that their full use suspends or abates the force of the hearts contraction, and of the contractible tissue of the arteries. And this I apprehend is the field for examination in prosecuting the farther investigations on this subject. And here too, I have no doubt will be found the immediate cause of death in these few cases which have apparently died from the use of chloroform ; that is, the chloroform has exhausted, abated or destroyed, the nervous power of the system and consequently the power of muscular contraction of the vital organs in the same manner as lightning does, but not quite so suddenly perhaps.

It is well known that anæsthetics, especially chloroform, operate in a different degree and manner upon different persons, according to their different nervous susceptibility ; or the different manner of administration ; with some a *single* full inhalation of the vapor of chloroform is sufficient to produce complete and perfect anæsthesia, and suspend respiration at the same time for a short period, and until means are used to rouse the suspended vitality ; and who can doubt that if such patient should be plied with a repetition of chloroform on the first appearance, of returning animation, that life would be immediately extinguished. I admit that this conclusion is purely speculative ; but the facts on which the speculation is based, I have witnessed more than once, having within the last few years seen some two or three such cases. I am led to think that chloroform may operate by suddenly extinguishing vitality as before indicated, by direct application to the nervous structure, as found in those tissues with which it first comes in contact, and without being carried by the circulation to the brain ; whereas, when more slowly administer-

ed and mixed with the atmosphere, we do not witness its effect, until it has had time to be passed to the nervous centres by the blood; as is most generally the case with chloroform, and always the case with æther, and in this case anæsthesia possesses more of the characteristics of a deep heavy intoxication than of extinguished vitality. In the administration of chloroform it is the first effect to which I have alluded, that we wish to guard against—that is, suddenly extinguishing vitality.

And to do so the patient should be in the recumbent, or semi-recumbent position, as by this position the blood is more easily kept pressed upon the brain with sufficient force to keep up vitality, of which I think there can not be much danger, if the chloroform is not hurried upon the patient at first. I would regard a sponge, as large as a medium sized orange and with a concavity upon one side, as a suitable thing for giving the chloroform; this should be wet with cold water, and the water compressed from it by the hand, then from twenty to thirty drops is to be poured into the concavity of the sponge and the sponge again compressed, but not so firmly as to eject the chloroform, but simply to diffuse it through the sponge; when, during the interval of pain the patient may take the sponge in her own hand, and commence lightly to inhale the vapor, increasing the frequency and fulness of the inhalations as she finds agreeable, and without inducing cough or choking sensations. Taken in this manner, the patient soon falls into an easy slumber of the anæsthetic kind, when it may be proper to see that the sponge does not remain in contact with the nose, lest a more heavy anæsthetic effect may be obtained than is desired. More than one object may be obtained by wetting the sponge with water: First, less chloroform suffices, as the fibre of the sponge does not require to be saturated with chloroform, and then the evaporation of the water keeps the sponge cool, and the cool humid atmosphere mixed with the chloroform is less irritating to the air passages than the vapor of the chloroform, without the water, if my observation has served me rightly.

In the administration of sulphuric ether, no special rules are needed, except that when full anesthesia is desired from this agent,

it should be pushed rapidly on to its effect; the patient ordinarily requiring no intervals in its use, in order to fill the lungs with air. As its continuous and rapid use shortens the period of excitement, which precedes anesthesia with this agent, it is a rule which has been so often urged as scarcely to need repeating, that there should not be undigested food in the stomach when anesthetics are used; otherwise nausea, vomiting and an uneasy, restless state of the patient will be induced.

With regard to other anesthetics, amylene, bisulphuret of carbon, chloride of hydrocarbon, bensole and other articles not in general use, or generally found in the shops, I have nothing to say, as it is anesthesia itself, and not its routine of agents, of which I wish to speak.

ART. XXX.—*Observations on Dysentery*. By J. L. ABERNETHY, M.D., Concord, Tenn.

What is dysentery? This interrogatory has, doubtless, propounded itself to the mind of every scientific member of our profession, yet the problem has never been explained, so as to be of practical importance to the medical fraternity, or of benefit to suffering humanity. The theories existing are too numerous to relate. Pathologists, however, harmonize more in regard to its nature than its therapeutics. There is no disease in the whole catalogue of human complaints, that has received as varied a treatment, as the one under consideration. No two authors agree, in every respect; no two practitioners coincide in every particular; and many eminent ones occupy antagonistic positions.

They tell us on the other side of the Atlantic, that dysentery is "purely an inflammation," and the theory, in this indefinite condition, has been endorsed, to some degree, on this side of the "Great Waters." The expression of the above quotation, is very vague and meaningless. Gonorrhoea is "purely inflammation," and, so is gastritis, yet they differ wide in their pathology, etiology and therapeutics. In general terms, dysentery is "purely an inflammation"; but what kind of an inflammation is it?

There are two kinds of inflammation—common and specific. They differ in respect to the causation, and the tissue complicated. The causes of common inflammation are traceable, definite and direct, while the causes of specific inflammation are obscure, indefinite and indirect. The common phlogosis is mostly confined to deep-seated tissues, while the specific variety is generally situated on the skin and mucous membranes. Erysipelatous inflammation is the general nomenclature for inflammatory affections of a specific character, of the skin and mucous membranes.

Is dysentery a specific inflammation? Our answer is in the affirmative. Now for the proof. We will take up and examine the different phases of the disease, and see if the theory advanced can be sustained.

Dysentery is situated, or located, generally in the sigmoid flexure of the colon, or the adjacent intestine, below or above, more frequently below. Why is it that it always attacks this part in preference to any other portion of the alimentary canal, or any other canal with a mucous membrane? Let us make four divisions of the alimentary tube, and briefly examine their anatomical structure separately, and then compare the result. First, the œsophagus, is composed of three coats, layers or membranes. They occupy the following relation to each other: 1st mucous; 2nd cellular; 3rd muscular. The first, or mucous membrane, has a basement membrane which is profusely supplied with bloodvessels and nerves. The second or cellular coat connects the muscular with the mucous membrane, and transmits the bloodvessels and nerves, from the muscular to the basement of the mucous membrane, consists of two layers; the fibres of the external are longitudinal, and those of the internal are circular. The stomach is of the same structure, excepting the addition of a fourth or serous coat. The small intestines, like the stomach, possess four membranes. The mucous membrane is longer than either of the other layers, and hence must be thrown into numerous folds, which are called *valvulæ conniventes*. They differ from other folds of mucous membrane in being fixed or permanent. The surface of the mucous membrane, is covered with a number of papillary projections, called villi, which im-

part a soft and velvety feeling to it. In the small intestines are found the follicles of Lieberkuhn, glands of Peyer and Bruner, and the solitary glands. Let us now descend to the large intestines, and examine their construction. Here we find a mucous membrane, not unlike that of the small intestines, excepting the absence of the valvulæ conniventes and villi; it is whiter, thicker and coarser than the mucous coat of the small intestines. The follicles or crypts are numerous. The cellular layer is the same as found elsewhere in the alimentary canal. The muscular membrane, like that of other portions of the intestines, consists of two fibres, longitudinal and circular. The serous coat is the same as found everywhere, only it has numerous folds of fat, which are called appendices epiploicæ.

We have briefly run over the anatomy of the alimentary tube, and find its structure pretty much the same, from the mouth to the anus. We have examined in vain, for a reason why dysentery should be located where it is. There is no rational or explicable reason revealed by anatomy, why it should be situated in the sigmoid flexure of the colon; if there was, then there would be one argument less in favor of the theory advanced.

Pathologists, who call dysentery "purely an inflammation," inform us that there is none of that redness and softening, revealed by pathological investigation, that is so characteristic of gastritis and enteritis; but that there is always more or less ulceration, and in many cases, the diseased bowel is an, "irregular, confused and tattered mass of disorganization." Why is it that in enteritis or gastritis there is redness and softening, and in dysentery the bowel is ulcerated, and is often an "irregular, confused and tattered mass of disorganization?" Pathologists explain why this difference in pathological lesions, and another argument is crushed.

The danger to be apprehended in typhoid fever, is peritonitis resulting from perforation of the intestines, and in this fever every organ and tissue of the system is in an unfavorable condition to take an inflammation, because the very elements, or at least the concomitants of inflammation, are below the normal standard; yet, in dysentery, when, according to the common

hypothesis, the elements of inflammation are in the excess, and the bowel ulcerated, and often an "irregular, confused and tattered mass of disorganization," extensive peritonitis rarely supervenes. Why is this? Because inflammations differ in respect to the tissue diseased, and specific inflammations never attack serous membranes—have no affinity for them.

The most important and pathognomonic sign connected with the symptomatology of dysentery, are the hemorrhagic discharges. Is hemorrhage a natural consequence, and concomitant of inflammation of mucous membranes? Most assuredly not. Inflammation of the mouth, and œsophagus is not attended with hemorrhage. Hematemesis is no indication of gastritis.

In enteritis, there are no hemorrhagic evacuations. And all these diseased organs have their cellular membrane profusely supplied with bloodvessels and nerves, afferent and efferent, direct and indirect from the spinal cord. The bleeding, which is sometimes excessive and alarming, that occurs in dysentery, establishes beyond all cavil the specific character of the disease.

The period of the year in which dysentery prevails, and commits its desolating ravages, indicates much in favor of the theory advocated. All common inflammations are most rife in the cold, dreary and desolating winter, and the ever vascillating vernal months. They are more frequent at these periods, because their causes are more abundant, direct and definite, than at any of the other seasons of the year. The disease, under consideration, makes its appearance in the latter part of summer, and generally disappears at the approach of cold weather. These facts are unquestionable evidence, that the cause or causes of dysentery are quite different from the etiology of common inflammations; and inflammations are classified, common or specific, according to their causes. Cold is one among the chief causes of inflammation, but it cannot produce dysentery, for then the disease would be mostly confined to the period when ordinary local phlegmasia exists. Imprudencies of every kind are a prolific source of common inflammations. It is true, the violation of the laws of nature is detrimental to health, and may hasten on, and aggravate the symptoms of any disease, epidemic or endemic;

but to suppose that dysentery is dependant upon imprudencies of any description for its existence is the very height of super-erogation. It is no respecter of persons. Its frequency is as great, in the affluent mansion, as in poverty's hovel. It is found as often, and its mortality is as great, on the mountain's top, where health-disseminating breezes waft, as along the river shore, or in the low and marshy lands, whose poisonous effluvia pervade the atmosphere.

The etiology of dysentery, like that of those terrible scourges, algide cholera and yellow fever, is much in obscurity. The chief cause—the predisposing cause—is essentially epidemic. It exists in the atmosphere, manufactured or brought about in some manner, by unnatural changes or conditions of the summer and autumnal seasons. The exciting causes are any and everything, that has a tendency to undermine the normal foundation of the whole system of organs of the human economy.

If dysentery was a common inflammation, venesection to decrease the volume of blood, mercury to diminish the amount of, and check the formation of fibrine, tartar emetic to reduce the action of the heart, and equalize the circulation, and numerous other antiphlogistic agents, would check the disease as quick as they would pleurisy. Will antiphlogistics cure common inflammation? They will. Do they cure dysentery? Would to God they could, but they can't! Experience has taught that we may bleed, mercurialize and antimonialize, and the tormina, tenesmus and hemorrhage will continue unabated, if not, in many cases, aggravated. In many cases, of a very acute nature, in a plethoric patient, the judicious employment of the lancet is of great advantage; but in a large majority of cases the prostration contra-indicates it. Experience has taught, that blood-letting has no influence over the duration of the disease. Mercury as a sialogoge—not as a defibrinizing agent—is generally beneficial, because the secretion of the liver is invariably checked. Tartar emetic is of no advantage.

Anodynes and cathartics are the remedies, most successfully, and generally employed. Injections of nitrate of silver through long tubes are thought to do good. The treatment that is gen-

erally employed at this time, and the fatality of the disease, point distinctly to a specific disease. But to tell what kind of treatment is best, is not the object of these "observations." That is reserved for a future paper.

It is admitted with regret that the profession knows but little in regard to dysentery. But the science of medicine, like everything in this fast age, is rapidly advancing, and it is confidently anticipated, that before many years will have passed away, some Jenner-like mind will rise up and throw off the mantle of obscurity that is suspended around this disease. Let the burning fountains of the sun of science be invoked to pour their refulgent rays of light and reason upon this most direful disease and exceedingly alarming complaint.

PROCEEDINGS OF MEDICAL SOCIETIES.

ART. XXXI.—*Semi-annual Session of the Medical Society of East Tennessee, April 8, 1857.*

The society met in the basement room of the First Presbyterian Church at 3 o'clock P.M. The President, Dr. Samuel Pride, of Maryville, in the chair. The following members were present:

DR. R. H. HODSDEN, *of Sevier.*
 " C. W. CROZIER, *of Knoxville.*
 " O. F. HILL, "
 " JAMES RODGERS, "
 " RICHARD O. CURREY, "
 " JAMES H. SAWYERS, "
 " W. R. HURLEY, "
 " JOHN M. BOYD, "
 " SAMUEL PRIDE, *of Maryville.*
 " ISAAC TAYLOR, "

The proceedings of the last annual session being read the following physicians were proposed as members, and signed the Constitution:

DR. W. N. BICKNELL, *of Monroe.*
 " B. A. MORTON, *of Blount.*
 " T. J. COWARD, *of Anderson.*
 " ORREN SMITH, *of Knoxville.*
 " JAMES W. CATES, *of Blount.*
 " W. S. PORTER, "

Reports of committees being called for, Dr. R. H. Hodsdon, chairman of committee on prize Essays, presented the following report which was adopted—and the same committee continued :

The committee who have had under consideration *prize Essays*, beg leave to report that but two have been submitted, and would recommend that farther time be given for the reception of such Essays, and a committee be appointed to report on the same to our next annual meeting.

R. H. HODSDEN, *Chairman*.

The chairman of the committee on embodying the Acts of the Legislature in reference to the State Medical Society and a Board of censors being absent, the subject was continued with same committee till the annual session in October.

Dr. Hodsdon, of Sevier, the orator of the day, apologized for not being in readiness for the meeting; business of importance calling him into another county, he had inadvertently left his written address at home. His appointment was continued till annual meeting.

Dr. Currey reported, that as Corresponding Secretary he had addressed a circular letter to every physician of reputable standing in East Tennessee, asking their co-operation in carrying out the objects of the society. He had sent out more than 300 circulars.

Committees on epidemics being called on,

Dr. R. H. Hodsdon stated that during the past year Sevier county had been exempt from epidemic visitations. That the year 1856 had been remarkably healthy.

Dr. J. A. Long of McMinn presented a report on an *Epidemic Rubella*, which prevailed in McMinn county in 1856.

Dr. James Rodgers reported Knoxville as having been free of epidemics during 1856. In the county there had been several epidemics, the history and progress of one of which would be reported by Dr. James H. Sawyers.

Dr. Isaac Taylor of Blount read a report on the epidemics of Blount county during 1856.

After which a very animated and interesting discussion ensued respecting the contagiousness of *Epidemic Dysentery*,

Typhoid Fever and *Cholera*, in which although no one was prepared to admit the *contagion theory*, yet there were instances in which it was difficult to account for the spread of the disease on any other ground.

On motion the President was empowered to appoint Delegates to the American Medical Association which meets in Nashville Tenn., May 5 proximo. Dr. Currey moved that the President of the Society, Dr. Pride be appointed by the Society as one of the Delegates which was unanimously agreed to. Adjourned.

EVENING SESSION.

Dr. Pride in the chair.

In accordance with Art. vi, of the Constitution, reports of cases were called for from the members.

Dr. Hodsdon reported his success in the treatment of *intermittent fevers* with a new preparation, consisting of *prepared chalk* and *vinegar*. It had effectually cured every case, without any relapse, in which he had used it. He gave it an hour before the expected time of the chill, in the proportion of a *table-spoonful* of each mixed together, and being permitted to stand for a while to allow the effervescence to take place. He did not know how it acted, only from its effects. It had manifested itself as a general *secernent*.

Dr. Pride—Does any good result where it fails to operate on the bowels?

Dr. H. had seen no case in which it failed to act freely. The kidneys were excited as well as all the secreting organs. He was so well pleased with it as to desire its use by the members of the society. He had obtained his information from a friend in the West who stated to him that he had seen hundreds cured by it.

Dr. Currey inquired whether Dr. H. had used vinegar alone in the treatment of chills. He had used *hard cider* satisfactorily in obstinate chills—and had experienced decided benefit himself the first year of his professional course. It was a common practice among the lower classes in the West. Lemons in coffee he had also known to exert a decided and happy effect in arresting obstinate cases after quinine had failed.

Dr. Pride, spoke of the good resulting from the use of *sage tea* in a case that came under his observation. Dr. P. was requested to write out his employment of the chalk and vinegar for publication.

Dr. C. W. Crozier reported a case of *dizziness* of head accompanied with nausea, and a disposition to sink, relieved by a copious draught of *warm water*. It did not excite emesis, but speedily relieved the nausea and all other unpleasant symptoms.

Dr. O. F. Hill reported a case of *acute rheumatism*, presenting several points of interest. The case is prepared for publication.

Dr. James Rodgers read a very interesting paper on a case of *abdominal abscess* now under treatment. He was permitted to withdraw the paper so as to present the concluding treatment of the patient. The abscess is throwing of large quantities of pus, and is exerting such a debilitating effect on the patient, a young lady of 18 years of age, as to call for a resort to tonic treatment. The seat of the abscess, its extent, and its obscure origin render it a case of peculiar interest.

The abscess opened at the umbilicus and discharged more than a half gallon of greenish colored matter. It has continued to discharge, the amount growing less each day, up to the present time. For ten days after it opened, there were not less than sixteen ounces each day discharged—so that during the entire time, it may be estimated, that she has lost at least two gallons of pus. On probing the abscess it is found to reach downwards towards the symphysis pubis, and to the right and left iliac region. Her health, though somewhat impaired, has been surprisingly sustained.

Dr. Currey reported his employment of the *oil of erigeron* in the treatment of four cases of uterine hemorrhage—in three of which it had produced happy effects—and in one case of hemoptysis. His attention had been first directed to this medicine from reading a report in the Transactions of the College of Physicians of Philadelphia. He gave the following outline of his cases:

Case 1.—Mrs. L. had fallen down the staircase while advanced two and a-half months in pregnancy. Hemorrhage resulted—

but being of alight nature, she had not paid any attention to it. About the fifth day it had increased so much that she sought medical aid. At once and without preliminary treatment, only enjoining light diet and rest in bed, and having satisfied himself, by an examination, that there was no dilatation of os uteri, he gave the oil according to the following recipe :

R. Oil erigeron	gtt.xlviii.
Pulv. gum arabic	3ij.
White sugar	3ij.
Water	3ij.

M. Take a teaspoonful every one or two hours according to the circumstances. After taking four doses, the hemorrhage ceased entirely, and, without any untoward result, she went on to her full time.

Case 2.—Mrs. C. had received a severe shock to her nervous system which brought on a dribbling of a light colored blood, accompanied with pains in back and lower part of bowels. She had passed two weeks beyond her usual time for monthly sickness, and suspecting that she was in the pregnant state from the nature of the hemorrhage as well as attendant pains, he gave the oil of erigeron as in the first case, only at shorter intervals. The hemorrhage gradually ceased, and she is now advanced to her fifth month.

Case 3.—Mrs. G. at her seventh month, on ascending a flight of stairs, suffered to such extent as to bring on profuse hemorrhage and labor pains. Satisfying himself that the pains had not caused any dilatation of the os uteri, he quieted the system with a full dose of opium, and then began the use of the oil of erigeron, at the same time applying cold applications to vulva. Rest and low diet were enjoined, and under this treatment, after two days, the hemorrhage ceased entirely.

At the end of another month the hemorrhage again returned but was controlled as before—and at the succeeding month she was brought to bed of a healthy child—a footling presentation.

Case 4.—Mr. N. was attacked violently with hemoptysis. A copious bleeding, followed by the oil of erigeron in as full doses as could be given—with an occasional dose of alum and grated nutmeg, arrested the hemorrhage entirely in the course of two day

Case 5.—Lucy had, after a day of washing, been taken with pains which resulted in a miscarriage at the third month. The after-birth came away, but hemorrhage continued very freely beyond the usual time. An examination detected no remnant of membranes—although the hemorrhage was profuse; pulse feeble and languid; great weakness; no pains over abdomen—but a constant hemorrhage. The oil of erigeron was given in four drop doses, and the patient placed head, shoulders, and body on same plane. By the next day the hemorrhage ceased nearly altogether, and the continued use of the oil afforded perfect relief.

The oil of erigeron is noticed in the Dispensatory as a diuretic, tonic and astringent. It is to this last property that it owes its effects. It is fragrant, and of a light olive color. It is a volatile oil, obtained from the *Erigeron Philadelphicum* and *E. canadense*.

Dr. Hurley was opposed to new remedies, especially where they proposed to set aside those on which the profession had so long relied, as opium and sugar of lead. He knew these to have a happy effect in controlling hemorrhage, and was not disposed to give them up.

Dr. Pride was not so wedded to old remedies. Many new remedies are now among our most efficient medicines. And on the whole he believed that even sugar of lead and opium exerted their influence generally on the system. His decided preference was for opium, yet he thought the oil alluded to should be tried.

Dr. Currey replied that the science of medicine was one of progress. Our most valuable medicines are volatile oils, active principles, and chemicals—recently brought to light by the revelations of chemical science. Shall we reject all—and if we take one why not take all? He alluded to *veratrum viride*. The profession was reluctant to take hold of it, and yet in the treatment of Pneumonia and of Typhoid Fever, he believed it to be the remedy. He had used it invariably in many cases from the beginning, in others as a dernier resort, and was pleased with its effects.

Dr. Hurley was cautious of it at first, but had begun to use it by way of compromise, by combining it with antimonial and ipecac wines—and was pleased with the combination.

Dr. Pride reported a case of supposed miscarriage. The practitioners contended that miscarriage had taken place, though they had not seen the foetus. They were at a loss to account for certain irregular movements in the region of the womb, and supposed it to be a rapid collection of blood in the womb and were desirous for him to introduce a spoon or hook and take the clotted blood away. He told them that the movements were those of the child, but not convincing them he directed them to apply their ear to the abdomen, when in astonishment they inquired what it was they heard. Seeing their ignorance, and determined to joke them, he gravely told them it was the *crying* of the child. This convinced them that they had been mistaken. The woman was directed to be quiet, it was at the period of quickening, and the medical attendants to go home and prepare themselves for their duties. They were not regular practitioners.

Dr. Taylor reported a paper in course of preparation on African Consumption, which he would forward for publication. He believed the disease to be induced and not hereditary. He had opportunities of making *post mortems*, and full accounts will be presented in his report of the cases.

Dr. James H. Sawyers had a paper in preparation relating to an epidemic which is at this time prevailing on the south side of the Holston in Knox county. It is confined to one locality about two miles square, the first cases occurring near an old mill pond on the Maryville road four miles from this city. The disease although beginning as a neuralgia of the brain, soon runs into active inflammation. The patients from a slight headache, are seized with sharp pains through the head; intensely congested state of the brain; full slow pulse; nausea; restlessness; and finally delirium, which in some cases sets in within twenty-four hours after the attack. Extremities all the time are of an icy coldness. Treatment consists of an antiphlogistic character entirely. Out of twenty-five cases in that vicinity three have died.

Dr. Bicknell reported a case of Hernia, in which, after reduction, injections of salt water had been given to open the lower bowels. They did not come away, but the next day the

patient was seized with nausea and vomiting of a thin salt water fluid. Oil was afterwards given by injection as his bowels had not been opened, and this too was vomited up. The action on his bowels being yet retained, he gave mercury which had the desired effect.

Dr. Hurley reported two cases of African Consumption, in which the only symptom during life was a hacking cough—no expectoration, and an occasional diarrhea readily controlled by Dover's Powder. There was dullness on percussion. Both cases gradually dwindled away.

A post mortem examination of one presented one lung of a dark color, like a soft decayed mass. The other lung was apparently sound. There was no hereditary consumptive taint in the family. The last case had been a nurse for the first.

Dr. Morton reported peculiarities in the epidemics of Blount county especially those which prevailed on Crooked creek. One peculiarity was that the epidemic prevailed on the east side, there being some 40 cases—while on the west side, only distant a few hundred yards there were only 3 or 4 cases. The creek became very offensive during summer from decaying vegetation, so much so that many complained even when they had to pass through the neighborhood. He believed the epidemics of that district to be attributable to malarious influence.

Another peculiarity was in Miller's cove. During 12 hours of the 24, the wind blew unto the cove and the remaining time out. It was a regular *in and out* breeze. New cases generally developed themselves during the inward current of air, showing the source of the disease.

Dr. Boyd reported a case of parturition unaccompanied with even the most trifling labor pain. The lying in woman succeeded in deceiving all her nurses, except the physician, and had almost prevailed upon them to go home—strictly denying that she was in the family way, but was only dropsical. Labor went on steadily and resulted safely—but no pains throughout.

(The reporter regrets his inability to present a full account of the discussions which sprung up on the presentation of the foregoing reports. The hour of 12 at night had arrived before they were concluded.)

The following resolutions were offered and adopted :

Resolved, That Drs. Hodsdon and Birdwell of Sevier, Bicknell and Bogart of Monroe, Lenoir and McNutt of Roane, Frazier of Bledsoe, Atlee and Long of McMinn, B. H. Mynatt and Sawyers of Knox, Cates and Porter of Blount, Blackburn of Campbell, Coward of Anderson, J. T. Jones and W. S. Bell of Hamilton, Sneed and Josiah Rhoton of Jefferson, Abraham Jobe of Carter, J. S. Gillespie of Rhea, Carriger of Claiborne be appointed special committees to prepare Reports on such epidemics as have occurred in their respective counties during the present and past years—and report the same to the annual session of this society in October next.

It was moved that a committee be appointed to collect and embody such accounts as can be obtained regarding the history of surgery and important surgical operations in East Tennessee, and that they report at the annual session. And that a special request be thus made of the members of this society and of all regular practitioners in East Tennessee to aid the committee, by transmitting to the chairman—accounts of such operations as may have come under their charge.

Whereupon, the President appointed Drs. R. O. Currey and J. M. Boyd, of Knox, and Dr. Benjamin Franklin, of Monroe.

Dr. Hurley offered the following resolution which was adopted :

Resolved, That the members of this society will sustain the Southern Journal of Medical and Physical Sciences, edited by Dr. Richard O. Currey, and published in this city, that we recommend it especially to all the physicians of East Tennessee as deserving of their patronage, and that we will contribute regularly to its pages.

It was Resolved, That a committee of three be appointed to prepare a Report setting forth the propriety of memorializing the Legislative Assembly of Tennessee, on the subject of registration of marriages, births and deaths, and that they report to the society at the annual session in Oct., as well as present a memorial for adoption by the society.

The committee appointed consists of Drs. W. R. Hurley, O. F. Hill and James Rodgers.

The President announced the following list of Delegates to the American Medical Association in May next :

DR. RICHARD O. CURREY, of Knoxville.

" O. F. HILL, "

" JAMES RODGERS, "

" R. H. HODSDEN, of Sevier.

" J. A. LONG, of McMinn.

" JOHN. L. ATLEE, "

" B. B. LENOIR, of Roane. And by vote of society,

" SAMUEL PRIDE, of Blount.

There being no further business before the society, it adjourned to meet in annual session in the city of Knoxville on the first day of the *Division Fair* at 7 o'clock, P.M.

SAMUEL PRIDE, M.D., *Pres't.*

O. F. HILL, M.D., *Rec. Sec'y.*

LIST OF MEMBERS OF THE EAST TENNESSEE MEDICAL SOCIETY;
FROM ITS ORGANIZATION, IN 1845, TO THE
PRESENT TIME.

Dr. J. G. M. Ramsey.

" Samuel B. Cunningham.

" William Rodgers.

" Samuel B. Bowles.

" James Rodgers.

" F. M. Compton.

" Frank A. Ramsey.

" John B. Grigsby.

" B. R. Strong.

" James C. McIntosh.

" W. F. Barr.

" J. M. Burnett.

" F. A. McCorkle.

" John R. Young.

" Wm. West.

" Wm. Hunt.

" R. Humphreys.

" Wm. R. Sevier.

" J. B. Reese.

" Samuel Pride.

" A. R. Rodgers.

" J. W. Paxton.

" William Faria.

" R. Sneed.

" J. P. Evans.

" J. F. Cowan.

" W. S. Porter.

" J. T. Young.

" E. S. Miller.

" B. B. Lenoir.

" W. T. Thurman.

" John F. Rhoton.

" A. Carmichael.

" Hugh Walker.

" Worley Embree.

" A. W. Brabson.

" W. W. Bovell.

" Abraham Jobe.

" John E. Cossan.

Dr. Luther Brown.

" G. W. Simpson.

" Thomas Manly.

" W. S. Moore.

" Thomas K. Harman.

" M. Carriger.

" Josiah Rhoton.

" John Jobe.

" W. S. Bell.

" Milo Smith.

" J. S. Gillespie.

" W. E. Kennedy.

" A. D. Taylor.

" B. Frazier.

" J. T. Jones.

" W. R. Hurley.

" William Rogers.

" J. H. Carriger.

" Benjamin Franklin.

" Frank Bogart.

" John L. Atlee.

" C. W. Crozier.

" Stephen H. Smith.

" Otis F. Hill.

" William A. Rodgers.

" Ruel Birdwell.

" Richard O. Currey.

" John J. Moorman.

" James H. Sawyers.

" Isaac Taylor.

" J. M. Hammer.

" J. A. Long.

" B. A. Morton.

" B. K. Mynatt.

" Orren Smith.

" J. H. Blackburn.

" W. N. Bicknell.

" John M. Boyd.

" Thomas J. Coward.

ART. XXXII.—*Report on Epidemic Rubeola, as it prevailed in McMinn county, Tenn., 1856.* By J. A. LONG, M.D. Read before the East Tennessee Medical Society, April, 1857.

Having been appointed by the *East Tennessee Medical Society*, at its annual meeting held in October last, in the city of Knoxville, to report on the epidemics of McMinn county, for the past year (1856) I proceed to give a brief account of an *Epidemic Rubeola* that prevailed in this county (McMinn,) from about the first of April 1856 until November of the same year. The year 1856 was somewhat remarkable for its freedom of any epidemic of a *grave* or dangerous character. In fact there were fewer diseases of any kind of a *grave* form, than we have witnessed for many years past,—and a greater tendency to periodicity than what is usual in this locality. Diseases of a *low grade* were less common, and a greater tendency to an *inflammatory type* or *form* of disease, than there has been since '44. No *epidemic* of any kind prevailed the past season but *measles* (Rubeola.) The disease was brought into this county from the South by way of the E. T. & G. Railroad, and quickly spread throughout the country. There was nothing peculiar in this *epidemic* or its attending *sequela* that I observed. It almost invariably come on in the usual way in the shape of common *catarrh*, with hoarseness; cough; huskiness of the voice; suffused and watery eyes; mucous discharge from the nose, &c., &c., with more or less fever, increasing up to about the fourth day, when the characteristic *rash* made its appearance—sometimes a little later—but rarely sooner than the fourth or end of the fourth day. In some weakly patients, or such as had been exposed during the stage of incubation; the eruption was more tardy, and did not make its appearance until the sixth, seventh and in one case, that fell under my notice, it did not come out until the *ninth* day. The disease attacked all ages and sexes (that had not previously had the complaint,) but was much more common, and less severe, among children than adults, though frequent and severe among the latter. The eruption first showed

itself upon the face, neck and trunk; then traveling to the upper and lower extremities—making an interval of from one to two days, from the first appearance of the *rash* upon the face to its completion on the extremities. I observed many deviations from this regular course of appearance, and progress of the *eruption*. These irregularities, and more especially, *delays*, in the appearance of the *rash*—were generally the effect of debilitating causes; they were not only found in weakly persons (as before premised,) but were the effect of congestions, engorgements, or inflammations, of some one, or more of the *vital organs*—suppressing the energies, and stifling the vital forces of the system, and in this way producing debility of the whole system, and consequently an irregular and tardy appearance of the *eruption*.

In the athletic, full and plethoric, or robust patients, I most generally met with an engorged state of the organs, from the excited state of the circulation in such patients. I saw many cases where the disease was thrown out of its natural course of development, from officious interference with domestic remedies—such as a superabundance of *teas* of all kinds, stimulants, too free purgation; baths of every temperature, badly conducted emetics, &c., &c. In some cases, as soon as the eruption was fully developed upon every portion of the body, the most urgent symptoms began to decline, and gradually, one by one, left off and the disease naturally and safely passed away with mild *diarrhœa*. But in other cases, (and by far the largest proportion,) the catarrhal symptoms, fever, &c., were increased or remained stationary (and in full force) for some days before the eruption began to fade,—and this took place, first in the face and then gradually extending to the trunk and extremities. But a great variety existed in this, as well as in the forming stage of measles.

Many cases I observed that did not occupy more than twenty-four, or forty-eight hours in the eruptive stage. The *rash* appearing, and rapidly fading, in quick succession, and the disease passing off favorably with, or without *diarrhœa*. But in its more common and natural course, from three to four days were taken up, in the full development of, and fading away, of the eruption. In a small proportion of my cases the eruption *reced-*

ed immediately upon its appearance—or what was more common, *partially* appearing and *receding*, many times, before its complete development. There was considerable diversity in the amount, color and other characters of the rash. In some cases it consisted only in a few isolated red spots; in others it was profuse, almost covering the entire surface, with a fine eruption—somewhat resembling *scarlatina*, leaving little or no sound skin intervening between the eruption, of a rough, full appearance, especially on the face. And in two children that I was called to see in the same family, was the resemblance so great to *scarlatina*, that the *diagnosis* would not have been easily made out if measles had not been prevailing to a considerable extent, throughout the entire neighborhood, and surrounding country—at the same time, with the entire absence of any epidemic *scarlatina*, or even sporadic cases; the country having been sorely afflicted with that dread malady about twelve months previous.

But by far the most interesting, and dangerous feature of the *epidemic*, was its complications and *sequela*, which consisted principally in *inflammations* and *congestions* of the various organs. The most common and obstinate were *bronchitis*, *pneumonia*, *diarrhœa*, *dysentery*, *gastritis*, *gastro-enteritis*, *ophthalmia*, *dropsy*, *cancrem oris*, &c. A few cases terminated in *consumption*—and one case (yet under my care) of extensive *hepatization* of the right lung.

Treatment.—In the *mild* and *uncomplicated* cases nothing more was done than to keep the patient upon an abstemious diet; a proper attention to the bowels, with laxatives when costiveness was present; and to keep the patients free from exposure by uniformity in the temperature of the sick chamber. Congestions and inflammations were met promptly with their appropriate remedies—such as bloodletting; both general and local mustard plasters, blisters &c. I found in cases of oppression of the lungs, from engorgements, the free use of large *mustard plasters* to act almost like a charm, in relieving *dyspnea*, cough, and pain in the chest. *Diarrhœa*.—When this was mild I did not interfere with it, for the complaint appeared to pass off very favorably with mild diarrhœa, but when it became excessive and

weakening, or prostrating, Dover's powders was used in doses to meet the demands of the case. But if the discharges became *dysenteric*, with *tormina* and *tenesmus*, I resorted to the free use of *opiates*, which always produced the most satisfactory results.

ART. XXXIII.—*Report on the Epidemics of Blount county, Tenn., during 1856.*
By ISAAC TAYLOR, M.D., Maryville. (Read before East Tennessee Medical Society, April, 1857.)

The duty has been assigned me, by this society, of writing a paper on the epidemics of Blount county, for 1856. As a member of this society, and a member of the medical profession I readily comply to the best of my ability with any duty that may be imposed on me; that has for its object the interest of the profession and the promotion of the designs of this organization. But as the medical topography, natural cause and treatment of the diseases of our immediate section of country is a subject of the most momentous interest to every member of the healing art, and to fully comprehend, digest and elucidate, requires profound investigation, research and ample experience, taking this view of the subject I feel there are many whose years of experience and extended opportunities better qualify them for the task than myself.

Although I have been but a few years engaged in the active, arduous and responsible duties of the profession, I have tried at all times to appreciate fully its responsibilities. Called to witness the diversities of man's physical organism, I have attempted, according to the lights of medical science and reason, to discover the cause of disease, remote or existing; for the cause fully determined, the peculiarity of the affection is more readily ascertained. Thus the pathological condition of the system, the deranged condition of the organism, functional or structural, is determined. We then have more implicit reliance on our remedial agents in assisting nature in freeing herself of disease and resuming her healthy functions. In order to attain this object fully, I have kept a careful note of the more important cases in

my practice, their incipency, progress and terminations, the peculiarity of constitution, the surrounding causes, as water, locality, atmospheric changes, &c., and the peculiarity of the disease during those changes, more particularly in the dysentery of last season. A paper setting forth these facts fully digested and matured, and careful deductions culled therefrom, as I think, is of more practical utility than any hypothetical theory, as a hobby of some visionary theorist.

In the investigation of the subject under consideration, it will be necessary to notice the character of those diseases that are termed epidemics. Those diseases that prevail temporarily throughout a more or less extended region of country strictly differing either in their character, modes of approach, progress and disappearance from the ordinary complaints of the region in which they occur, are termed epidemics, while the ordinary complaints are called endemic, because originating among the inhabitants, or within the country itself. I will notice more particularly the epidemic disease that prevailed in Blount county last year (1856.)

The summer and fall months were extremely warm and dry, frequently quite sultry and depressing for this section.

The lands of the county are generally rolling, so much so that there are but few, if any of the water courses that do not convey their streams with sufficient velocity to prevent stagnation, and but few ponds of any kind; and in the south-east part of the county where the disease prevailed fearfully it is quite broken and mountainous.

I will first notice *dysentery* or *flux* which prevailed over a large portion of the county after the commencement of the drouth in July, until the latter part of October, frequently in the latter part of the season complicated or continued with typhoid symptoms, which I think originated from the same cause, rendered more violent from a continuation of the depressing causes operating on the vital forces of the system.

The first case which I treated last season, was far advanced in this type, but there were five cases in the same family attacked subsequently that presented none of the typhoid symptoms. The most prominent symptoms in the early part of the season

were, first: lassitude, languor, disinclination to exertion of any kind, often wandering pain in the abdomen, with fullness of bowels, chilly sensations, with flushes of heat. Then diarrhœa, sometimes bilious, then mucous, as an increased secretion of that substance, thence floating flakes as detached portions of membrane, and soon becomes streaked with blood with excessive tenesmus and tormina and as the case advances, the blood becomes more profuse and incorporated. Until in bad cases, the discharges assume a dark dissolved or grumous appearance. In children the discharge underwent frequent changes from bilious to muco-sanguinous, than a tenacious grass-green, or yellow, These changes I dislike very much if attended with the expulsion of worms, and stupor, contracted features and a quick feeble pulse.

The pulse at first is frequently but little disturbed, but becomes irregular or labored and when the disease is fully developed, full and bounding, and becomes quick and wiry as the disease advanced, this acceleration attended with fever, dry skin and excessive thirst.

The tongue at first coated with a yellowish or brown buff, the papilla projecting, the edges first becoming red, and thence the whole organ red, slick and dry, and often dry cracks in the top, and in typhoid complications, dark brown or black toward the back part.

There is generally some strangury; urine scant and high colored.

The skin is dry and hot, and where there is extreme prostration a dusky or leaden hue or settling of purplish splotches over the surface particularly over the chest and abdomen. There are frequent pains and soreness of spine, over the sacro-spinal junction, with numbness of the extremities.

In aggravated cases the symptoms become more urgent, the bowels tympanitic, and tender; but at times shrunk, or collapsed. The discharges assume a dysenteric character frequent, dark, dissolved or grumous. The smell, at first a peculiar fresh, sickening odor, becomes extremely offensive.

A total want of appetite with nausea and vomiting, at first the ejection of the accumulated fluids imbibed, but becomes dark greenish, this is quite prostrating.

There is sometimes disturbed intellect where there is cerebral termination or high fever as a muttering unconsciousness in typhoid complications; but I think as a general thing consciousness remains perfect as long in fatal cases as in any disease I ever witnessed.

The pulse becomes feeble then entirely extinct in the extremities, coldness ensues, animation recedes gradually, breath entering the lungs shorter and shorter, syncope frequent, until a last gasp, and animation is extinct.

In infants it is frequently different as the brain is more readily impressed, the reflex nervous irritates that organ, engorgement ensued with symptoms indicating cerebral congestion, and, if not speedily removed, convulsions terminated the scene.

In some families where all the foregoing symptoms obtain in some cases, others were of a different character, sluggishness of system, sluggish pulse, fullness of bowels, a want of appetite, deficient secretion, an aversion to mental or physical exertion, an increased heat or fever, and in twenty-four hours, and in many cases free hemorrhage from the bowels.

There is one other disease that claims a consideration in this paper, viz: *scarlatina*.

In the winter of '53 and '54 it made its appearance, the first case I heard of being near the junction of the Holston and Little rivers, traveling with considerable regularity up Little river, and down the Holston. In its eastern tour it changed south, when east of Maryville. I think there were not half a dozen cases in Maryville, when four miles south-east there were but few families escaped entirely. It continued its course south-west into Monroe county, the borders of the course not being well defined as there were many scattering cases; the weather was bitterly cold during its greatest prevalence and greatest malignancy, and a number of cases proved fatal. It gradually disappeared toward spring and I heard but little of it until last summer (1856.) There were a few sporadic cases south-east in the knob of Crooked creek and in this same section I think the flux was more malignant and lingered later than elsewhere.

The first case I saw in 1856 was on the 11th of December,

from that to the 6th of January I treated fifty-four cases in sixteen families—the remotest cases not being three miles apart, and there was a number of cases in the same bounds I did not prescribe for. Four of the cases I treated proved fatal; in two of them I had a reasonable start with the disease—the other two were moribund when I saw them. There were some three or four other cases that died in the same section for whom I did not prescribe; cases also occurred in Miller's cove and in the mountain, and a number of cases on Little river were treated by Dr. Morton, with the history of which I am not acquainted. These are the only cases I heard of in the county except two in Maryville. It was confined to persons under thirteen years old, with few exceptions, and from two to eight, the worst period.

The symptoms were a drowsy, fretful indisposition, for some hours, then nausea and vomiting, with chills and depression of system, then flushes of heat with the eruption appearing, with inflamed tonsils and uvula, pain in the head, accelerated pulse, excessive thirst &c., in many cases the prostration was persistent with indistinct eruptions; but the whole surface presenting a diffused redness as if stained by polk berries, the tonsils dark, red and ulcerated, a muttering delirium; and in one case, at which I was present, a girl, six years old, complained suddenly of excessive pain in the left knee; on examination there was no swelling, but some engorgement of the cutaneous vessels; vesicles soon made their appearance, and in a few hours a dark appearance was observable internal to the articulation, in short, presenting all the appearance of gangrene, and the elbow, I think the right, presented the same appearance before death, in a few cases after decided convalescence. Muscular and nervous energy was quite impaired, not having the power to sit upright or walk without great difficulty; giving away in the spine and falling, presenting fully the appearance of a person much intoxicated, with no fever, good appetite, secretory and excretory functions nearly normal.

These are the more important epidemic diseases that have prevailed in this section in the last three years. *Typhoid fever* generally prevails to a greater or less extent every fall, but as I am

directing some attention to it in the history of dysentery I will not notice it separately. As a knowledge of the cause or causes that induce disease is of the greatest practical importance to every practitioner of medicine I will offer a few observations as to what I conceive the cause of *dysentery*, or *flux*, but as there is such diversity of opinions on this subject I deem it difficult to determine certainly; but from careful analysis of those opinions and observations, I have formed my opinions, and will offer them, hoping to induce investigation, if no more. The miasmatic theory, is certainly hard to establish when the only water is the crystal rivulets that gushes from the mountain side, and tosses from rock to rock until it passes for miles away into the valley, and as the breeze passes over the flowery clad crest of the mountain into coves, it cannot carry malaria, but only fragrance, exhaled from the mountain flowers, and in those coves the disease prevailed fearfully.

The animalcule, I think, untenable, as there was no indication of a systematic march of an army of imperceptible animalcule nondescript, but cases presented themselves sporadically over different parts of the county, and becoming more numerous as the season advanced; the county is well watered with freely flowing springs.

The ozone theory is advocated by some of late years, and many more I might notice, but will proceed to give my opinion as to what I think the most plausible.

Viewing the nervous fluid, as electrical in its nature, and determined to a part or organ capable of causing increased heat, and as a consequence a rush of blood to that locality, we have all experienced the effect of atmospheric electrical changes as depression before a thunder shower, and exhilaration after the electricity is *consumed*. A continuance of this electrical disturbance must certainly disturb the nervous equilibrium and hence the abatement of the disease after a few thunder showers and its malignancy in a long continued dry spell.

In the incipency, we have lassitude and chilly sensations passing up the spine; then flushes of heat; here is a struggle of the nerves to regain their wonted equilibrium. We have reflex

disturbance at the origin of the nerves distributed to the pelvic viscera, pain and soreness at their origin. The sciatic is involved from the contiguity of origin, with numbness and pain of the lower extremities and also the great sympathetic is involved with the nervous centers; we then have nausea and vomiting, derangement of the secretions, sighing, syncope, &c.

Exciting causes may assist, as indigestible food, over-heat, and cooling off suddenly, and draughts of cold water, causing a termination to the relaxed membrane, and increased action of the excretory glands; thence diarrhoea, congestion, detached portions of epithelial or mucous membrane, with muco-sanguinous evacuations, the excitement augments and extends with increased heat and soreness around the arch of the colon into the right iliac region and over the bowel, with a rush of fluids to the internal parts, a constant waste from the system and hence the want of cutaneous circulation, dryness of the mouth and skin, the engorgement increases until the glands become so involved that ulceration is induced, a detraction of the vital fluids, blood and nervous, from the centre and brain, and true typhoid symptoms supervene, but sometimes the depression is so considerable from the commencement that these symptoms obtain from near the onset.

On this theory I can explain the cause clear to my mind, and trace the symptoms through, while there is none other to me plausible. More particularly in the mountainous sections, where the water is fine and air pure, and no perceptible cause for the origin of miasmata. But *iron ores* abound, furnishing ample material for Vulcan to manufacture thunderbolts for Jupiter. The chariot it is true does not appear, the material is not used, but remains to the great annoyance of the hardy mountaineers; but when clouds arise, thunder peals here are most terrific, the electricity is consumed and the disease stops.

Many other proofs might be adduced physiologically, as the suspended vitality of a part when a nerve is compressed or ligate, or the deranged function when the nerve is distributed to a secreting organ, or the increased sensibility, or even inflammation when the origin of the nerve is inflamed. Without compression

to arrest the passage of the nervous fluid, or the known effects of galvanism in causing contraction when applied to a nerve even after life is extinct.

But why this determination to the rectum in flux? There is a large amount of nerves originating in, or passing off near the same point, as those to the pelvis and lower extremities. The rectum is contiguous, and the mucous membrane being relaxed from the effects of heat, the engorgement and inflammation readily take place.

Is it contagious? I think not more than any affection capable of depressing the vital powers of the system, deranging the secretions and excretions; exhalations are unhealthy when breathed for a long time in a confined room.

I will offer a few general remarks as to treatment and conclude this paper, already longer than I had intended. First, viewing the portal circle and mucous membrane engorged, in the commencement I give a pill recommended by Prof. Bowling, of Nashville, composed of blue mass, scammony, and aloes; the vessels thus disengorged, I give a full dose of opium to quiet nervous excitement, and anodyne glyster for the same purpose, and direct the excitement from the affected part by increasing the action of the secretory, excretory and eliminating organs, by diuretics, diaphoretics, counter-irritation, and sustaining the sinking powers of the system when indicated. The same object is in view in scarlatina by revulsives, as emetics, cathartics, rubefacients, stimulating baths and thus give the affected part, time to rest, recuperate and free itself of disease.

ART. XXXIV.—*Report of an Epidemic Neuralgia which prevailed in Knox county. South of Knoxville, during the months of February and March, 1857.*—By JAS. H. SAWYERS, M.D. Read before the East Tennessee Medical Society, April, 1857.

During the two preceeding months, February and March, a series of cases having occurred in the practice of my associate and myself, and from their violence and character, believing

them possessed of some interest to the profession, we submit a general and disconnected account of them. We say, general and disconnected account, for such it will be, having failed to note any particular case. The district in which the disease appeared, does not exceed the limits of three miles square, beginning one and a-half and not extending beyond four miles south of Knoxville. The locality designated is made up of a number of hills and dales, with meandering streams, coursing their way to the Holston. Their banks are generally low, and much of the bottom land is very damp, and in some instances, marshy. It was on, or in the vicinity of those streams, that the major part of the cases occurred.

We have thought best to give the prominent symptoms characterizing the cases, then detail a few of them and their treatment, and make such other observations, as to the cause or causes, pathology, treatment, etc., as may seem appropriate.

Persons attacked were from five to fifty years of age. But generally between fifteen and thirty years. Inciency of the attack, was often marked by cold sensations and sometimes decided chill. Almost simultaneous, acute pain was experienced in the jaw, cheek, tooth, or eye, finally locating in the head. Sometimes, pain was in a great measure confined to one eye and one side of the head. Side of the eye soon becomes swollen, and of a livid hue. Eye generally very sensitive under the impression of light. Coats of the eye, clear, not at all injecting, invariably throughout the disease, presenting rather a brilliant aspect. In some instances, there was sooner or later a copious discharge of water from the eyes. More or less pain, or uneasiness was present in the back and extremities. After the lapse of from two to five hours, a very high degree of arterial excitement came on; pain in the head, which became almost intolerable; pulse from 100, to 130; skin dry and hot; considerable thirst. Unless arrested at this stage, soon delirium and very great jactitation supervened; extreme anxiety and distress were now depicted in the countenance of the patient. Soon came on dilatation of the pupils; distortion of the features; irregular contraction of the muscles; (in one instance trismus;) coolness of

the extremities and surface of the body, and very frequent and feeble pulse. At this stage, all the secretions were suppressed; bowels obstinately constipated. This period of extreme suffering was soon succeeded by stupor; then a comatose condition, terminating in death from 10 to 48 hours. In one or two instances death was preceded by free and copious perspiration. We have said nothing of the appearance of the tongue, for it was clean, except in a few cases, when there was marked hepatic disorder. We have now given the prominent symptoms characterizing the cases generally, we will now detail a few of them, as they presented themselves.

On February 3rd, 9 A.M., my associate Dr. Rodgers, was called to see Miss M. Found her with slight pain in the head; gastric irritation; occasionally attempting to vomit, and some febrile excitement. An emetic of ipecacuanha was ordered, after which calomel and ipecac in two portions, to be given at intervals of two hours. One portion was administered. About noon, she was seized with severe pain in the head. Soon delirium; high degree of febrile excitement, and very great restlessness supervened, such as to prevent the exhibition of the second powders. Dr. R. was summoned to see her again at 3 P.M., and arriving at 4, found the patient dead. Death was preceded by a short season of comparative quiet.

On February, 4th, we were summoned to see Mr. J. 55 years of age, of full habits, and accustomed to the active duties of the farmer. Had suffered much from frequent attacks of headaches for several years. Had been laboring under slight pain in the head, constipated bowels, and general indisposition for some days previous. On the morning of the fourth pain in the head became more serious. Supposed his head was healing. About 10 A.M., pain in head and eyes became excruciating; during afternoon, delirium, high arterial excitement, great jactitation, &c., supervened; at 11 at night we saw him. Speech had been indistinct for several hours; pulse 120 and feeble, and head hot, extremities and surface of the body rather cool; anxious and haggard expression of countenance; eyes clear and bright, pupils too largely dilated; irregular contractions of the muscles of

the lids; lids of one almost closed, and the other widely separated; bowels constipated; bladder distended and great retraction of the penis; prepuce tightly drawn over the glans.

In this almost hopeless condition of our patient, the following treatment was instituted: Cups were applied and blood freely abstracted from the temples; after which pounded ice was constantly supplied to the head. Stimulating pediluvium, blisters to the ankles, and back of the neck, extending low down between the shoulders; sinapsims to the spine and thighs; rigidity of the muscles preventing the satisfactory administration of medicine by the mouth. Stimulating purgatives and anodyne enemata were ordered every one and a-half hour; soon the lower bowel was unloosed; bladder was relieved by the catheter; after which he became more quiet. Enemata were continued every hour; bowels became tympanitic; injections failed to have the desired effect, blisters failed to draw. All our efforts were inefficient and unavailing.

Having remained with our patient 13 hours, we left him, only having satisfied ourselves and the friends, that we had discharged our duty, as dictated by our feeble judgment. Ordered the continuance of the ice, enemata, and a renewal of the blisters. Now one pupil was still largely dilated, and the other very much contracted. All the means were persisted in without benefit. He gradually sunk into a comatose state, terminating in death, the following night.

Two other cases proved fatal, one of which was laboring under dilatation of the pupils; muscular twitchings, &c., when first visited. Twenty-five or thirty similar cases, of greater or less severity, were conducted to a favorable issue. A few of which we will detail, together with their treatment.

On the evening of the 15th of February, Mrs. H. was seized with chill, and pain in the cheek, soon seating itself in the head across the frontal region; in a few hours delirium ensued. During the night we were desired to visit her. Bowels being confined we ordered an active mercurial cathartic; mustard foot-bath; sinapsims to the ankles, thighs, spine and back of the neck. At 10 A.M., on the 14th, we saw her. Bowels had been

thoroughly evacuated; pain in the head slightly improved. Still laboring under some delirium. Eyes very painful, with intolerance of light; pulse 108, full strong; skin dry and hot; kidneys inactive; tongue coated brown, and considerable thirst, and irritation of the stomach.

A vein was opened, and $xij\frac{3}{4}$ blood abstracted from the arm; cups were applied to the temples; large sinapisms over the epigastrium; blister to the back of the neck. Neutral mixture in 3 parts, spts. nitre dulc, 1 part. One tablespoonful ordered every hour until fever abated. Calomel 3 grs. opium $\frac{1}{2}$ gr. ipec. $\frac{1}{4}$ gr. to be repeated every two hours, until sufficient of the opiate was taken to alleviate pain and induce rest. Three powders were only required.

On the 15th, patient much more comfortable; pain in the head much less; entirely sane; pulse 96 and soft; kidneys more active. Bowels being confined, a purgative of senna, salts and jalap was ordered. Neut. mixt. nitre spts. dulc; continuing every two hours during the day, and Dover's powder at night to procure rest. After which, blister being kept open, with the occasional use of an aperient, and opiates at night; convalescence was soon established and health restored.

On the 15th, of February, Miss W. was suddenly attacked about noon, with violent pain in the face, eyes and head; pain being much more acute in the left eye and temporal region. At 3, P.M., we saw her. Lids of the left eye turgid and of a livid hue; head hot; strong pulsation of the temporal arteries, discernible at a considerable distance; pulse 120, full and hard; skin dry and hot; tongue brown; great thirst and slight nausea. We immediately opened a vein and bled her almost *ad deliquum animi*. Pain was very much relieved and arterial excitement reduced. After the lapse of half an hour, pulse came up and the pain returned. We untied the arm and allowed the blood to flow, until a decided impression was again made on the pulse and the pain alleviated. Bowels being free, we ordered 3 powders, each containing calomel, 4 grs. opium, $\frac{1}{2}$ gr. ipecac, $\frac{1}{2}$ gr., to be given at intervals of two hours; sinapisms, also were ordered to the lower extremities and back of the neck, and cold applications to the head.

16th, 11 A.M.—Patient slept 3 to 4 hours during the night; pain in the head almost relieved; eyes very painful; pulse frequent and rather small; bowels and kidneys inactive.

Brisk cathartic was ordered, and neut. mixt. and spts. nitre dulc, every two hours. At bed-time, we ordered calomel 2 grs. opium gr. $\frac{1}{2}$ ipecac, $\frac{1}{2}$ gr. and, saline purge the following morning. With treatment, pain subsided and the patient recovered her usual health in about 15 days.

On the 24th of February, Mr. R. during afternoon was attacked with pain in the head. During the night it became distressing. At 2 o'clock we saw him. Pain in head excruciating, increased by turning or getting up; head as usual hot; pulse 108, very full and strong; bowels free, having taken a dose of salts early after the attack; tongue clean, and considerable thirst. Being a young man of plethoric habit, we resorted to the lancet; then gave calomel, 3 grs. opium, 1 gr. and ipecac 1 gr., pain still being acute, in 40 minutes same dose was given, and repeated in one hour. After which, he became quiet and slept for three hours—awoke almost entirely free from pain. An active dose of pills, containing, calomel, jalap, scammony, aloes and gambogia was ordered at 8 A.M., and an opiate at night. On the 26th the patient was able to be out-doors; in two or three days was entirely well.

On the 8th inst., we were called to see Miss H.—Had been seized with acute pain in the eyes and head at 10 A.M. We saw her at 3 P.M., pulse 120, full and strong; head hot; skin dry; eyes very painful, with free discharge of tears, and intolerance of light. Patient being of full habit, a vein was opened and $\frac{3}{4}$ x blood drawn; cold applications to the head; sinapisms to lower extremities and back of the neck. Bowels being free, calomel, 2 grs. opium, $\frac{1}{2}$ gr. and ipecac 1 gr. was given, and repeated in half an hour; after which there was an abatement of pain, and a pleasant and refreshing sleep procured. At bed-time same dose was ordered.

On the 9th, the patient was entirely free from pain, having rested during the night. A purgative, of senna, manna and jalap was ordered. With this treatment, the patient soon recovered.

Such was the severity and violence of pain in this case as to induce her to think her head would split asunder; and to prevent such an undesirable occurrence, two lady friends were holding it, when we arrived. Such was the similarity of the cases, that a detail of others is unnecessary.

The extreme cold, and the sudden atmospheric changes, for which the past season has been remarkable, were regarded as the causes.

From the suddenness and violence of the attack, the disease we consider in the incipency, solely neuralgia. The high degree of arterial excitement, meningitis, and very probably cerebritis, we regard as the effects of nervous irritation. The so considered effects were the grave and prominent features. Indications in the treatment were the alleviation of pain and the reduction of febrile excitement, requiring the use of anodynes, and antiphlogistic measures. To meet those indications, no course in our judgment, would be more prudent, than a judicious use of the lancet, calomel, opium, ipecac, rubefacients, blisters, brisk cathartics and restricted regimen.

When the patient was plethoric and the febrile excitement high, we regarded the use of the lancet, indispensable.

In two or three cases when the pain in the head was obstinate, the febrile symptoms having subsided, quinine and Dover's powders had a very happy effect.

In the early, prompt and energetic treatment, prognosis was favorable.

OUR NASHVILLE CORRESPONDENCE.

ART. XXXV.—*Twenty-eighth Annual Session of the Tennessee Medical Society.*

Dear Doctor :—You medical editors, like the Athenians, always love to be hearing or telling some new thing. Perhaps this is well enough, for the people have learned to look to the Athenians, *alias* editors, for the current news.

Well, you would like to hear all about the "Twenty-Eighth Annual Meeting of the Tennessee Medical Society," of course you would.

The society—one of the oldest and best sustained in the south—met in the city of Nashville, on the 7th of April, and continued in session several days.

It was officered as follows:

DR. J. P. FORD, *President.*

" B. W. AVENT, *Vice-President.*

" CALLENDER, *Rec. Sec'y. and Treasurer.*

" W. K. BOWLING, *Cor. Sec'y.*

Dr. Haskins read an able paper on Therapeutics, etc.

Dr. Buchanan reported a death (neither by nor from, but) *in connection with* the use of chloroform.

Dr. Manlove presented one of the most remarkable specimens of intussusception of the colon that I have ever seen. It reminded me at once of the first case of invagination of the bowels which I ever saw. A Professor of Anatomy in a western school was lecturing upon and demonstrating the alimentary canal to a class of medical students. In the absence of both the Professor and class, the Professor of Pathological Anatomy—Dr. Drake—went to the table and with probe in hand cautiously invaginated a portion of the bowel. The Professor of Anatomy resuming his lecture and demonstration, proceeded until to his astonishment he discovered the bowel had been *swallowing* itself—and here the tenor of his way was interrupted and the class had a lecture upon intusception, after which Professor Drake in his usual good natured way, arose and congratulated the Professor of Anatomy upon his versatility of talent, and the class upon their good fortune in hearing a subject of such magnitude so thoroughly discussed, and concluded by informing the Professor and class that in an hour of leisure while strolling through the Institution he had invaginated the gut to have some fun, and that if the Professor would now observe more carefully, he would find the "*hyperemia*" referred to, had been superinduced by the probe, and was not as supposed in a pathological condition. Dr. Manlove's case however was different from this in that his was a *veritable* one, and elicited a spirited and well directed discussion.

Dr. Watson read a paper on Obstetric surgery. He highly commended instruments and disapproved the use of ergot in difficult and prolonged labor. Without some guardian qualifications, the Essay will probably fare badly when it gets away from home. With his explanations, however, ergot becomes a man of straw, and instruments keep their proper places. In other words with the doctor's explanation, ergot is invaluable when there is no malformation, and the soft parts are dilated, or dilatable and labor feeble. Who would, who ever did give it under other circumstances?

Dr. Ford, Dr. C. K. Winston, Dr. P. F. Eve, Dr. W. P. Moore and others read papers of much merit. Indeed the proceedings were eminently, pre-eminently creditable to the Tennessee Medical Society.

The following is a list of such as were presented during both days, with their authors:

A Treatise on Obstetric Surgery; by Dr. J. M. Watson.

A Statistical Report of forty-three cases of Urinary Calculus; by Dr. Eve.

A complicated case of Measles, Pneumonia and Hemorrhage; by Dr. C. K. Winston.

A case of Unruptured Hymen; by Dr. R. Thompson.

A case of Intussusception of the Colon; by Dr. J. S. Manlove.

A case of Enormous Tumor on the lower Maxilla; by Dr. Avent of Murfreesboro'.

A paper on the Influence of the Mother's mind on the Fœtus in Utero; by Dr. Moore of Mitchellsville.

A case of Blighted Ovum; by Dr. Ford.

A case of Removal of a large Tumor, resulting in the death of the patient from the use of Chloroform; by Dr. Buchanan.

The following gentlemen were appointed delegates to the American Medical Association:

Dr. Felix Robertson, Nashville; Dr. John W. Richardson, Rutherford; Dr. B. W. Avent, Murfreesboro'; Dr. Thos. Lipscomb, Shelbyville; Dr. Wallace Estill, Winchester; Dr. J. P. Ford, Nashville; Dr. Jos. E. Manlove, Davidson county; Dr.

E. C. Robb, Clarksville ; Dr. G. A. J. Mayfield, Nashville ; Dr. T. L. Maddin, Nashville ; Dr. Jno. D. Winston, Nashville ; Dr. R. T. Evans, Shelbyville ; Dr. E. B. Haskins, Clarksville ; Drs. J. H. Callender, J. D. Kelly and S. S. Mayfield, Nashville ; Dr. W. P. Moore, Mitchellsville ; Dr. W. K. Bowling, Nashville ; Dr. W. D. Haggard, Gallatin ; Dr. Richard Owen, Nashville ; Dr. A. H. Buchanan, Nashville ; Dr. Robert C. Foster, Nashville ; Dr. J. E. Dengerfield, Clarksville ; Dr. W. P. Jones, Nashville ; Dr. John A. Morton, Nashville.

The society appropriated its funds, after paying current expenses, to aid in entertaining the American Medical Association.

The financial committee, it is said, have raised, by voluntary contribution, between one and two thousand dollars for the entertainment of the Association. Of course East Tennessee will see to it that she is properly represented at the capital of her own State.

PART II.
MONTHLY MEDICAL RECORD.

MATERIA MEDICA AND PHARMACY.

A new Anti-Periodic and a substitute for Quinia.—By RICHARD S. CAUTHORN, M.D., Richmond.—I desire to call the attention of medical profession to a plant, indigenous in our country, very abundant, and of great value as a therapeutic agent, but which has been classed with the secondary remedies of our materia medica, and has thereby attracted very little of the attention of physicians. It certainly deserves a place in the *first* rank of remedial agents. In my humble opinion, it deserves to occupy a position as an anti-periodic, by the side of the far-famed cinchona.

The plant was first presented for my inspection, in September last, by Mr. Joseph Barnard, of Henrico county, Virginia, who had informed me more than twelve months previously, that he was in possession of the knowledge of a plant, the bark of whose root would cure intermittents with more certainty than quinia.

When he presented me the plant, he remarked that by it he had succeeded in curing a protracted case of ague and fever which had baffled the skill of a neighboring physician, and that if I would try it, I never would use quinia again. This I thought was very great praise, and I determined to give it a trial, but being busy at the time, and not having an opportunity to give it the attention which I thought it merited, I had the plant laid by for a more careful examination at some leisure moment. When, after some lapse of time, I again took it up for examination, I found that, from its having been so broken up in order to its more convenient portability, together with the crisp and friable state of its leaves, I could not satisfactorily determine its precise species. It was shown, however, to one of our servants living in the country who said he was familiar with it, and that it was old Dr. Ragland's Root of Man; that he had used it frequently, and had but recently cured himself by it of ague and

fever. Subsequently, I obtained several other specimens, but imperfect ones, for relentless Jack Frost had robbed them of their foliage, and left me nothing for inspection but roots and stems. I think, however, from what I have seen and what I have learned from Mr. B. and our servants, that I have arrived at a correct conclusion as to its species and its name, which I will endeavor to verify next summer, if I live, and if I find that I have been mistaken, I will acknowledge the error.

This plant has been in use in the counties of Henrico, Hanover and Goochland, as a domestic remedy in various diseases for twenty years, and perhaps, for a much longer period, under the appellation of the root of man or man root, which name was given it probably by an illiterate and eccentric old root doctor of the name of Ragland, who died a few years ago, in the lower part of Goochland county. This very eccentric old man once prescribed it for tooth ache in a respectable married lady of my acquaintance, who was unblessed with children, saying, "Madam, you must take the root of man." The lady told of the doctor's prescription to some of her female friends, who, considering the name of his remedy as a sort of double entendre, enjoyed it as a good joke, the recital of which has rarely failed since that time to provoke in either sex, a hearty laugh. Our servants have used it in various complaints for many years, infused in whisky. Since I have been endeavoring to test its virtues as an anti-periodic, I have conversed with various persons from the country, in whose neighborhood it is in general use among negroes and the lower classes of whites. One gentleman of Henrico told me that he had heard of at least fifty cases of intermittents which had been cured by its use. I was informed by another that the negroes about Ashland, Hanover, used it liberally and successfully for the same purpose in the form of bitters (tincture.) I understand that the milk of the stem has been successfully used to cure verrucæ, circinatus and some forms of favus.

When I began my experiments with this plant, I thought it was probably a nondescript, but further investigation has changed my opinion, and satisfied me that it is no other than the common milk weed, or silk weed, the *Asclepias Syriaca* of the United States Dispensatory.

In that work it has been classed as secondary, and in the earlier editions thought worthy only of a passing notice. In the tenth edition it occupies more space, but no indication is there given, I believe, of its ever having been supposed to possess anti-periodic properties.

It is unnecessary for me to attempt a description of it, as that

has been given (as I suppose,) in the Dispensatory. I will add, however, one or two descriptive features by which the plant may be recognized, I think, in early winter even when stripped of its foliage.

The caulis, or stem is, as described, simple. It rises at right angles from the root, straight as arrow-wood, to the height of from three to five feet. Its cortex or external tunic is extremely thin and delicate, and when frayed presents the appearance of raw silk. If this be twisted into a thread the size of sewing silk, it will be found as strong as that article, and perhaps stronger. The root runs horizontally a few inches under the surface of the ground, and frequently more than one stem arises from a long root. When a simple stem with the root is dug up and inverted it resembles the letter T, from which resemblance Mr. Barnard called it the T plant. It may be found most frequently on head lands, or in fields which have not been cultivated for two or three years. When found in fields which have been recently cultivated, the root will be found to have penetrated into the earth unusually deep.

The root is so intensely bitter as to render its infusion, though a very convenient, yet to many persons, an insuperably objectionable mode of administration, and like the stem it is so very lactescent, that its bark requires a long time to dry before it can be pulverized for pills, less so in tincture. I have heard that in domestic practice it had sometimes produced emesis, and catharsis, but in my hands, given in pills, sometimes to the extent of grs. xvij. or ℥j. perhaps, it produced no such effects not even the slightest nausea. Mr. O. A. Strecker, druggist of this city to whom I gave some of the root, informed me that he had chewed some of it and in him it produced some nausea. I will now proceed to detail my experiments with the medicine as an anti-periodic.

Case 1.—In removing the bark from the root of the plant, furnished me by Mr. Barnard, the only one experimented with, an inspissated viscous juice adhered to the fingers, which was scraped off and rolled into eight pills smaller in size than a buck-shot. These were sent to one of our women living in the country laboring under intermittent fever. The woman took the pills and was speedily cured.

A small portion of this bark after it had been dried in the shade, was pulverized, mixed with a little capsicum, and, with the aid of a little wheat flour, was made into pills about the size of buck-shot, and put away for a suitable case in which to try their value.

Case 2.—On the third of October, I was called to see an elderly negro man at a short distance above the city, who was taken alarmingly ill the day before, of an ague, the first, he said, which he had ever had in his life. I found him dejected, complaining of pain in the back and limbs; general uneasiness, but with little or no fever, and with a clean tongue. I directed him to take of the pills above named, two at a time every two or three hours, unless he should have a chill or a rise of fever, in which case he must discontinue their use.

October 4th. Found the patient with little or no fever, but complaining still; said the evening before he became chilly and afterwards had a hot fever. His tongue was now coated. I prescribed hydrarg. chloride. mit. grs. xvj. Divide in pill jv., one to be taken every four hours; after his having taken the last pill, and, for fear he might have another paroxysm, directed him to continue the tonic (anti-periodic) pills also, and to take, two or three hours before time of the expected paroxysm, six of them at a dose.

October 5th. Found the patient better; medicine had been taken as directed; spirits much improved; had no chill last evening; tongue still coated; complained of some pain in the back and chest, but no symptoms indicating serious pectoral disease. I directed him to take the tonic pills as before, i. e. two or three hours as a general rule, but that the last dose, which was to be taken two or three hours before the expected paroxysm, to be increased to six pills at a dose.

October 6th. Patient not feeling quite as well this morning as yesterday, but no chill last evening; tongue looking rather better. Continue the tonic pills occasionally, two at a time.

October 7th. Patient thought he had a slight chill last evening, followed by some fever; tongue cleaning slowly. Ordered a few grains hydrarg. chlorid. mit. and the tonic pills to be continued regularly two at a dose.

October 8th. Patient had a profuse perspiration last evening, but no chill; a gradual improvement in the symptoms generally. Continue the tonic pills occasionally.

October 9th. Patient much better; has taken a few pills.

October 10th. All symptoms of disease had disappeared, and he felt well enough to leave his room. I would remark here that this patient was laboring under mental distress, caused by the death of his wife, a few weeks before, which, I think, caused a protraction of his disease, and thereby demanded a greater amount of the tonic (anti-periodic) medicine than I subsequently found it necessary to administer. This patient took some thirty

or forty pills, containing each two or three grains, as I suppose, for I did not weigh the medicine. It produced no unpleasant sensation about the head, no buzzing in the ears, and no sick stomach, as I expected it would do from what I had heard of its action.

Case 3.—October 5th. Visited Miss J——, a robust female, laboring under tertian ague of some weeks duration.

Prescription.—R. Hydrarg. chlorid. mit. grs. xvj.

Fiant pilulæ jv.

Unam sumend. quaque quart. hora; to be followed by a dose of oleum ricini four hours after the last dose. Quinia, grs. vj. in solution with tinct. opi, gut. xxx. to be given an hour and a half before the expected paroxysm. She objected to the quinia, because upon trying it several times before I saw her, it distressed her head. The next day October 6th, I sent her of the root mentioned above, two dozen pills, prepared without capsicum or any other medical agent, containing, I suppose, two or three grains each. She took one dozen and was cured. I visited her but once.

Cases 4, 5 and 6.—I was called, October 26th, to see Mr. P—— and two of his sons, one aged about five, the other about seven years, all laboring under intermittent fever.

The type of the fever in the children was tertian, in Mr. P—— double tertian. They had been sick a week or more; had been sick a week or more; had taken mild chloride of mercury, oleum ricini and quinia repeatedly without relief; Mr. P—— was jaundiced and complained sadly. I directed mild chloride of mercury in small doses, to be given at intervals of four hours to be followed four hours after by oleum ricini. I directed quinia to be given also an hour and a half before the expected paroxysm. Mr. P—— dreaded the quinia, saying it affected his family very unpleasantly. I told him I would the next day bring him a substitute for quinia.

October 27th. Mr. P—— had the paroxysm to-day, not having taken the quinia sufficiently early to prevent its recurrence, as it came earlier than he anticipated.

I found the children in the apyrexia. In them the paroxysm was not looked for till next day. I directed Mr. P—— to take as a dose two of the pills which I had prepared for him as soon as the fever should decline, every two or three hours as a general rule, but to be sure to take one larger dose, say some four or six pills, about two or three hours before the expected paroxysm, also to take hydrarg. chlorid. mit. grs. ij. at night. I directed Mrs. P——, the mother, to give the children the pills worked up

in a little syrup in the manner directed for Mr. P——, only in smaller doses.

October 28th. To-day I deferred my visit to a later hour, in order to see if my pills had been efficient. To my great satisfaction, I found upon inquiry that not one of the patients had had a chill, and that the icterode hue which had been observable in the skin and conjunctivæ of Mr. P—— was passing off. I directed Mr. P. to take at night two grains more of mild chloride of mercury, and the pills to be continued to all the patients as before.

October 28th. The medicine had been taken without producing the slightest uneasiness, the patients were all convalescent, and I discontinued my visits.

I would remark here that the pills used in these three last cases contained no other medicinal agent than the bark of the root furnished me by Mr. Barnard, and that each contained, as I suppose about two or three grains. I would further remark that not more than about three dozen, or three dozen and a-half of the pills were consumed by all three of the patients. I furnished two other gentlemen, who applied to me for advice in cases of intermittents then prevailing in their families, with some of the same kinds of pills, but I have not heard the results.* I presume, however, that they effected cures, else the gentlemen would have returned for further advice, as I am their prescribing physician.

It will be seen from the above that six cases of intermittent fever have been treated with a plant (which I believe to be the *Asclepias Syriaca*) used as a substitute for quinia, in every case with success, and without its once producing any of those distressing symptoms which frequently attend the exhibition of quinia.

I have now given my little experience of the anti-periodic properties of this plant, together with what I have been able to glean from other sources, (not neglecting the most humble,) for the benefit of the profession and of the community, and particularly for that of the *poor people* of our country. For, if the very high estimate which I have ventured to place upon its anti-periodic virtues, should be confirmed by future investigations of my medical brethren, as well as by myself, it will assuredly prove a benefaction to the *poor*, who can gather from their own fields this most useful plant, without being indebted to Madame Cinchona, that costly exotic, for the cure of their ills.

* NOTE.—Since writing the above, I have been informed that one of these gentlemen cured his son and one of his neighbors with the pills I gave him.

But I will draw this tedious article to a close, for like most scribblers, I have already protracted it to a greater length than I intended, and have, no doubt, sufficiently wearied the reader. The only excuse I have to offer for writing at all is that of a desire to raise to its *proper level* one of our most valuable anti-periodicals, and thereby to subserve the cause of the healing art and of humanity. As this will not reach my professional brethren before the beginning of a new year, I send it to them as a greeting of the season, wishing them the fullest enjoyment of every pleasure that may be rational, and of every amusement that may be innocent.—*Monthly Stethoscope.*

Richmond, Va., Dec. 2, 1856.

PART III.

EDITORIAL AND MISCELLANEOUS.

SUMMER COURSES.

We notice in the announcement of the Albany Medical College that two terms of lectures are held during the year, at both of which students are admitted to graduation. Thus one by one they are wheeling into line. Many other schools are adopting full summer courses so as to give nine months of instruction during the year.

The Philadelphia College of Medicine, the Albany Medical College and the Medical College of Ohio are giving two courses during the year, at each of which degrees are conferred.

The Atlanta Medical College and Medical College of Vermont hold only a summer course, and of course graduate all who can pass a satisfactory examination, while the larger portion of the schools are holding two full courses during the year the term closing only at the end of the winter course. This we regard as being best for the interests of the profession.

This leads us to say that we hope the day is not far distant when the various branches will be divided between the summer and winter courses, and the present plea of crowding the whole course of medicine into a compass of five hundred lectures, a great deal of which is mere verbiage, will be abandoned for the more rational system of giving thoroughly each day just so much as the pupil can digest. Thus the demonstrative branches can be taught during the winter and the practical during the summer. But as such a system would work a radical change in the labors of the instructors, we do not expect to see it carried out. We think moreover that this is a subject which would come legiti-

mately under the cognizance of our American Medical Congress. For nine years they have been appointing committees to report on such reforms as were needed in elevating the standard of our medical education. Let them now appoint a committee to draw up a plan of organization and prescribe a course of instruction for our medical colleges as well as for private instruction. Let them do this, and let the committee be appointed from among those who are not identified with any existing school. And then when adopted, cut off from the privileges of representation every school that refuses to conform to it. This we regard as the next step for the Association to take, and the sooner it is taken the better for the interests of medicine. For the very fact that such a multiplicity of plans is being adopted, is calculated to throw confusion into the ranks. The waters are becoming troubled, and only this Association can say, peace! be still.

EAST TENNESSEE MEDICAL SOCIETY.

Several papers reported at the last session of the East Tennessee Medical Society were to have been sent in in time for publication in the present number of the Journal. We hope the authors will forward them without delay. Our last re-union was a most pleasant and profitable one. Every member present seemed impressed with the importance of doing their part to add interest to the occasion, and we were glad to see the promptness with which the members, old and new, responded to their names for reports of cases.

The competition for the prize was kept open till the annual session. Two able Essays were before the committee for examination, but in view of the fact that the next annual session will be held at a time when there will be a still larger attendance, it was thought best to continue the matter; and it is hoped that many others will offer Essays in competition.

Committees on Epidemics were appointed in many counties, and it is confidently hoped that they will at once begin to pre-

serve all facts that come to their knowledge bearing upon the subject. It is important that a description of the locality, and the state of the weather should accompany these reports.

A committee on the *History of Surgery in East Tennessee* was also appointed. The object of that committee is to collect, and arrange descriptions of all remarkable cases of surgical operations which have been performed in East Tennessee. The circular of the committee is to be found on another page. It will be clearly seen that this is a matter in which the committee must have the co-operation of the profession to enable them to perform the duty assigned them. It will be a volume, if properly prepared, of great interest. And as the subject is one of great extent, it is presumed that the Report will be quite voluminous. If so, a permanent form will in all probability be given to it by the society, and so each contributor may rest assured that his productions will not be thrown aside after being read before the society. If the profession will aid in the Report, it will be seen what influence is exerted upon surgical operations by our healthful mountain climate. We ask again of the profession, do not withhold your contributions till the last day, but as you write out each case forward it to the chairman of the committee. This is a work which will embrace all the past as well as the present, and we specially request that each one would hunt up old records of cases, and quicken the memory in regard to them, and write them out and transmit at once. If any one is acquainted with cases of interest performed by those who have since deceased, they will confer a favor by reporting them.

We refer the reader to the circular on another page. And lastly we thank the society for the interest which they manifested in the Journal. Will each subscriber send us an additional one? To say that we need all we can get, a glance at the manner of the *getting up* of the Journal will testify. We print it on the best paper, and send it forth in the best style possible with us. We are at much expense in correspondence; and altogether we are contributing from our own pocket, in addition to the fund from subscriptions for sustaining the Journal. We are laboring for the good of the profession, and especially that portion in

East Tennessee, and while three dollars is a small amount to each one, yet in the aggregate, if withheld from us, it makes a large sum for us to pay individually. We are receiving all the Journals of this country and a few from Europe, and from them we cull the best for our Monthly Medical Record. But we aim to make our Journal as original as possible, and would prefer seeing every page filled with original matter. By this course we are independent, and serve to impress the great medical mind elsewhere.

We say then again, we are thankful for the resolution, and hope to see both its specifications carried out, and subscriptions and original communications are what we need.

KNOX COUNTY MEDICAL SOCIETY

Has been fully organized by the adoption of a constitution and election of officers for the ensuing six months. They are,

DR. O. F. HILL, *President.*

“ JOHN M. BOYD, *Secretary and Treasurer.*

Dr. John M. Boyd was elected delegate to the American Medical Association.

The next regular meeting of the society will be held at the office of Dr. James Rodgers, on the first Monday night of June, at 8 o'clock.

TO THE MEDICAL PROFESSION IN EAST TENNESSEE.

At the late session of the East Tennessee Medical Society the undersigned were appointed a committee to prepare a Report on the History of Surgery in East Tennessee. In the discharge of this duty, they beg leave to place before each member of the profession this circular setting forth the object of the task assigned them.

They desire to collect condensed statements of all surgical operations of a remarkable character. These they will arrange

according to the various organs affected, and prefix each class with such general remarks as may be deemed necessary. It will be thus seen that if the Report can be made it will be in fact the clinical surgery of East Tennessee. They cannot however perform this duty unless the profession transmit to them notes of their cases. And they desire to state that every case reported will be accompanied with the physician's name and residence. We are aware that many have not preserved notes of their cases, but we earnestly request them to recall to mind the prominent facts and transmit them. It is designed that this Report shall embrace all the past as well as the present, and we hope that our physicians will at once forward such notes as they may have by them.

The following are some of the subjects which will be embraced in the report :

1. Cases relating to abscesses, ulcerations, gangrene, carbuncles, burns, &c., and their treatment.

2. Cases relating to cancerous growths—characters and treatment.

3. Cases relating to poisoned wounds, from serpents, rabid animals, and dissections.

4. Cases relating to gunshot wounds, tetanus, &c.

5. Fractures—mode of treatment and results.

6. Dislocations—characters and results.

7. Amputations—and results.

8. The use of anæsthesia—what article, in what quantity and with what results.

9. Cases relating to calculi in bladder.

Other subjects might present themselves and the desire of the committee is to obtain full accounts of every important surgical case, embracing age, sex, date, habits of individual, treatment and results.

All reports of cases intended for the above purpose should be forwarded as early as possible to the *chairman of the committee at Knoxville, Tenn.*

The importance of this Report is evident to all. It will be the means of preserving many cases of remarkable character, and

the whole being embraced in one report, which if all who can, will contribute to it, will be somewhat voluminous, it will be a striking evidence of the talent and skill of East Tennessee surgeons.

RICHARD O. CURREY, *Chairman.*
JOHN M. BOYD.
BENJAMIN FRANKLIN.

N. B.—The committee would express their gratification at the promptness with which several medical gentlemen have already responded to the call of the committee. And as the report *will* be made, it is very desirable that *all* who have had important surgical cases to treat should have a hearing in it.


OUR ADVERTISERS.


In addition to those noticed in our last, we call the attention of our readers to several new ones in this issue.


Edelen & Passmore is the name of a firm opening a new drug store in this city. They have purchased their stock from the most reliable houses in New York and Philadelphia. It is very extensive, embracing everything in the drug line, and as they are experienced druggists they will not fail to give satisfaction. Having opened in Kennedy's new building, their fixtures, labels and jars all present quite an imposing appearance. Among the new chemicals we notice upon their shelves are to be found valerinate of ammonia, ammonia-ferric alum, santonine, chrinoidine, sulphate of bebeerine, sulphate of cinchonine, Maris's select powders, &c., &c. And we are *especially* requested to state that *they have an improved stomach pump, with all the appliances, which they expect to keep for the sole purpose of loaning out to any physician who may require to use it.*

In connection with their establishment they intend putting up a Soda Fount, the construction of which is upon the only principle calculated to afford pure mineral water. The apparatus itself cost \$300, and as during the operation of charging the founts there is a mercurial guage to indicate the pressure, the operator runs no risk of an explosion by charging too high.

We also direct attention to the advertisement of the Atlanta Medical College. This Institution has had singular success during its past terms. There is no winter course connected with it, and we see no reason why they should not be sustained. We hope they require the same requisites for graduation that other schools do, especially three years' study. The Faculty is an able one, and evince great energy in their enterprise.

 *The June Number* will contain the Proceedings of the State Medical Society and an account of the meeting of the American Medical Association.

 We were in error as to the cause of Dr. Milton Tate's death. It was not from Typhoid fever—but was the result of paralysis caused probably by the excessive use of calomel. Dr. Tate was highly esteemed as a man and as a physician.

 Our subscribers who have paid their subscriptions to the Journal are notified the premium of a copy of our work on the Geology of Tennessee is now ready. We would forward by mail, but as the post office department requires pre-payment of postage on it, we would be pleased for them to inform us how it shall be sent. Postage on it will be five cents. If therefore, they will send us the amount, we will direct in that way. The number of our premiums is so great that to us it would be no inconsiderable amount for us to pre-pay.

MEDICAL GOSSIP.

— Dr. WM. H. BYFORD, of Evansville, Indiana, in the

April number of *American Journal of Medical Sciences*, says:

"Everybody is familiar with inflammation of the mouth and salivation from mercurial inunction." "I am confident that it will produce duodenitis, colonitis and rectitis."

He regards these as equally conclusive that the system is under the influence of the remedy, and that it should be withdrawn. He then produces several cases to substantiate this point, and adds, "that the specific acute inflammation produced by mercury has its site—1st. Most frequently in the mouth; 2nd. Very frequently in the lower portions of the rectum and colon; 3rd. Not so often in the duodenum; 4th. Situated in all these localities, it may be combined with stomatitis or not"—and is a sign of mercurialization.

— *Chloroform*, its use and abuse, is ably discussed in the paper of Prof. Smith, of Vermont, communicated for this number. Judiciously used, it is productive of great good, both as a remedial agent, and as an adjuvant in surgical and obstetrical operations. We much fear that the smallness of the dose employed has been, in some cases, the cause of all the mischief that has resulted—while it is equally true, that excessive doses do as much harm. The difficulty, as Dr. Smith properly says, consists in the different susceptibility of different persons to its influence. In our practice, after folding a linen handkerchief in a cup-shaped form, we have poured into the concavity a half-ounce to begin with, and using caution in the first approaches to the patient's respiratory organs, have succeeded in producing complete insensibility; but like all other boons to suffering humanity, it is liable to its abuses—and hence Dr. Smith's caution is well-timed and appropriate.

★ Prof. SMITH, who fills the Chair of Obstetrics in the University of Vermont, has been sojourning in our midst on account of his impaired health, during the past winter. He left us on the 21st of last month, to resume his position in the University—an Institution which, on account of its extreme northern latitude, holds courses of lectures only during the summer. During his

+
Prof. Smith of Vermont - Tenetong.

stay, Prof. Smith, by his uniformly agreeable and professional bearing, endeared himself to a large circle of friends, among whom he came a perfect stranger. We had the pleasure of many entertaining interviews with him, and parted with him with regret. He performed, while here, several operations of note, one of which, that of tenotomy, was undertaken on the most unfavorable case that could have been selected. The lower extremities of the young man were so contracted and drawn together by the various tendons, that he had never put one heel to the ground—his foot being entirely everted. He could not separate his knees two inches apart, and his gait was the most laborious of any case that we ever witnessed. The knee of one leg was drawn across and to the rear of the other. By separating the tendo achillis, and other tendons in the bend of the knee, and one in the groin, his legs were brought to a parallel. Owing to the length of time he has been walking in a crouching condition, it is with great difficulty he can be educated to assume the erect position. At present, his toes turn out—his knees are easily separable by him at will, and there is a fair prospect of ultimate success, to a degree at least to make him more useful to himself.

— Mobile, Alabama, is better supplied with hospital advantages than we had supposed. We understand that in addition to the U. S. Marine Hospital, of which Dr. A. Lopez is the excellent physician, there are three private institutions—one owned by Dr. J. C. Nott; another by Drs. Ross, Ketchum, and Anderson; and the other by the Sisters of Charity, all of which are well-arranged and serviceable institutions. We make this statement as a correction to the notice in our last.

— *The new Epidemic—Brain Fever.*—The *Oswego* (New York) *Times* says the extent of the new epidemic known by the name of "brain fever," and which baffles all the skill of the physicians, is truly alarming throughout Madison and Onondago counties. A gentleman who has lately visited the former county, informs us that in some localities the people are leaving in alarm and dismay. Persons are frequently attacked with the remarka-

ble malady very suddenly, soon become insane, and die in a few hours. We do not know that any have recovered when once attacked by the disease. Duane Brown and Richard Thomas, Esqs., two prominent lawyers of Madison county, have fallen victims to it, and we are told in some of the villages deaths occur daily. As yet there is no rational explanation of the disease.

— *Eclampsia*.—We copy from the *Boston Medical and Surgical Journal*, the following remarks on this affection, so appalling to friends, and requiring the utmost promptness and skill on the part of the medical attendant:—

“At a recent meeting of the Suffolk district medical society, a case of puerperal convulsions was reported by Dr. Moore; and during the discussion which followed, Dr. J. B. S. Jackson remarked upon the frequency of *pain at the epigastrium* as a precursory symptom of eclampsia. This statement of Dr. Jackson was corroborated by Dr. Buck.*

“Dr. Channing, after remarking that pain at the pit of the stomach was laid down by Denman as the most frequent precursory symptom of puerperal convulsions, stated that in many cases observed by himself, the convulsions were the result of improper kind or quantity of food. As to the question of bleeding in anasacra of eclampsia, some authorities hold that the greater the anasacra the more free should be the bloodletting, while Dewees, on the other hand, recommended no bleeding in that affection. As a general thing, Dr. C. did not bleed as much as formerly. He added that he had never happened to see more than two cases of puerperal convulsions *during* labor, most of his cases having been instances of convulsions *before* labor. Since chloroform had come into use, Dr. C. considered eclampsia as manageable a disease as any of the puerperal state, provided it were treated by inhalations of that agent alone, or combined with ether. *Ether alone*, on the other hand, did not seem to him to answer so well. Other forms of convulsions, also, he thought were benefited by chloroform.

“[Though not by way of answer to the question which is the best anæsthetic in eclampsia, it may be well to bear in mind, in this connection, that numerous cases of recovery have been reported, which have been treated by sulphuric ether alone. The writer has treated three cases of eclampsia by anæsthesia, using sulphuric ether uncombined;

* We will remark in this connection, that in three cases of eclampsia, occurring under our own observation during the last two years, this epigastric pain was a precursor. We are disposed to think that such is the experience of many practitioners of midwifery, and we would be glad to collect from our readers, statistics on this point. —*Ed.*

and they all recovered. Still, it is possible that if chloroform had been used in all cases treated by anæsthesia, more instances of recovery might have been reported.—*Secretary.*]

"Dr. H. R. Storer had lately seen a case of eclampsia, in consultation with Dr. Nathan Hayward of Roxbury. The "convulsions first occurred after labor had begun. The temporal arteries had been successively opened, with the effect of temporarily checking the convulsions, which, however, soon returned. Chloroform was then given, and persisted in for several hours. By it, an attack was at once stopped, and others which threatened, prevented—a single convulsion only occurring after its use had been commenced, and that evidently owing to the negligence of the nurse. The child, a boy, was born living, and the patient made a good recovery."

"Dr. Storer also mentioned a case which had been described to him, of a lady about to be confined, in which there was œdema and albuminous urine. Dr. S. stated to a relative of the patient, the danger of convulsions, and the next news of the lady was that she had been confined and had had convulsions.

"*Antimonial enemata.*—Dr. Storer further mentioned two instances, since those previously reported, of undilatable os uteri, in which antimonial enemata had been of great benefit.

"Dr. Buck had seen good effects follow the use of antimonial enemata in undilatable os uteri, and thought well of the remedy."

— *In the treatment of Burns and Scalds*, Dr. Cogley, in the *Western Lancet*, employs linseed oil smeared on the place over which he applies cotton batting, and *allows the first dressing to remain on till the burn is healed*. He has found this plan to prevent scars and to be promotive of comfort to the patient and a speedy recovery.

— *For the treatment of night sweats of consumption.*—Dr. Coxe of New Orleans recommends the following formulæ in combination with a pill prescribed in Dr. Barlow's *Practice of Medicine* which is composed of *Ry.*—Sulphate of zinc, gr.i. hyosciamus extract, gr.iv. Make one pill, to be taken every night at bedtime.

Dr. Coxe's formulæ were—

Ry. Ferri quevenue, $\mathfrak{z}\text{iv}$; pulv. zingiber, $\mathfrak{z}\text{i}$; pulv. cassia, $\mathfrak{z}\text{i}$; pulv. phosp. lime, $\mathfrak{z}\text{vi}$; ferri carb. precip, $\mathfrak{z}\text{iiss}$. M. Dose, half to one tablespoonful three times a day, with one of Dr. Barlow's pills at night.

R. Sulph. zinc, ℥i; cinchona pulph, ℥i; ferri quevenue, ℥i; ext. hyosciamus, ℥i; ext. gentian, ℥i. M. Make into 24 pills. Dose, one pill three or four times a day.

— The foreign correspondent of the *Nashville Journal* does not seem to have formed a very favorable opinion of the gentleness and humanity of the French surgeons. At least M. Jobert is not shown off in a very enviable light.

He says, "At La Charite we have just seen the physicians Bouilland and Piory. Velpeau is in charge of the surgical wards. At the Hotel Dieu we have Rostan and Trousseau as physicians, Langiér, Jobert and Boyer as surgeons. Nelaton the surgeon is at the Clinique de la Faculté where also is Paul Dubois, the accoucheur. Cozenave and Ricord teach at their respective places. Milne Edwards lectures on zoology at the Jardin des Plantes. Brogniart, the botanist holds his course there during the summer. Bernard gives a physiological course at the Imperial school of France. At the Ecole de Medicine we have Berard, the physiologist, Jarjoray, the anatomist, Wentz, the chemist, Andeal the pathologist, and Malgaine, the surgeon," and we may add M. Chassaignac at the Hospital La Riboissiere.

— *Sick Headache*.—Administer the alcoholic extract of nux vomica, commencing with the twelfth of a grain, and increase to a fourth of a grain. These pills, taken for a fortnight, and then suspended for the same period, have apparently diminished the susceptibility of the brain to attacks. So says Dr. J. B. McCaw in the *Virginia Medical Journal*.

For our own part we have used, in one instance of sick headache of five years' duration, teaspoonful doses of the ammoniated tincture of valerian with perfect success, and in another of thirteen years' duration, the tartrate of iron potassa in mint water, internally, with chloroform liniment externally. In this case also there was a complete cure, and in both cases it remains permanent.

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T. E. OLDHAM.

M. J. BEARDEN.

JNO. JACKSON.

January, 1857.

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Advertisements.

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THE
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OF THE
MEDICAL AND PHYSICAL SCIENCES.
JUNE, 1857.

PART I.
ORIGINAL MEMOIRS AND CASES.

ART. XXXVI.—*Consumption*. By J. A. LONG, M.D., Canfrell's Cross Roads, McMinn co., Tenn.

There is probably no disease to be found in the entire catalogue of human maladies, that is claiming a greater share of victims at this time than *phthisis pulmonalis*, in some of its varied forms; yet lamentable to say, receives less consideration from the *medical profession* than any other disease, of which we are equally obnoxious, of one half, or less of its mortality. Much has been written upon the subject of consumption, *tubercle*, *tuberculosis*, and a peculiar diathesis, (scrofulous) predisposing to such diseases, in our regular works on practice, *monographs*, and *cyclopædias*; it does seem, merely to fill up the space in those regular works. For such articles consists almost wholly in repetitions, quotations, statistical tables, &c., of each other, beautifully finished off, with the same old routine of treatment, with expectorants, cough mixtures, counter-irritants, tonics, cod liver oil, &c.

In this *essay* or *memoir*, we do not design to give a regular history, course, and symptomatology of consumption; for this has been correctly enough done, by the older authorities; but more particularly to state our own views, founded upon practice and observation. We entered the practice (as most young practitioners do) full of hope, and sanguine of success, not only in common fevers, and acute diseases in general, but of chronic diseases, *consumptions*, *ulcers*, and even every form of *cancerous degenerations*. But so soon as we had entered fully within the portals of *practical medicine*, we began to *unlearn* for the first time, what we had *learned amiss*, and that *practical medicine* was in reality, the only reliable source, upon which to base correct and reliable information, in reference to diseases and their proper mode of treatment. But more especially was this the case with certain diseases, in which the profession was not so well settled in their views about the *mode of treatment*; consequently, in most cases, it was routine, and unsuccessful; and *consumption* in some of its varied forms, stood pre-eminent in this class of *maladies*. We studied and treated consumption after the old popular *routine*, until we were vexed, mortified, and even disgusted, with the results of the practice. So humiliating was this invariable termination in *death*, by consumption, that I determined to treat the disease upon a different plan, or to withhold treatment altogether. Since which time (1850) we have studied *phthisis* as a new malady, its history, different varieties, stages, shades, and faces, with a view to satisfy ourself, whether this dread calamity (for as such it must be viewed by all) could be influenced by any mode of treatment. The following conclusions have been arrived at from *practice* and observations at the *bed-side*: 1st. That *pulmonary consumption*, is a disease originating in *debility*, (see Rush on consumption, medical inquiries vol. 2,) bred and perpetuated by debilitating causes, of whatever nature; and in this way is transmitted from parent to offspring, and becomes *hereditary*. This fact I infer, from *tubercular consumption* following so often, close in the footprints of other diseases, as a regular *sequela* in the stage of convalescence, such as *typhoid fever*, *influenza*, *pneumonia*, especially *pneumonia*

typhoides, rubeola, &c., &c. Nothing is more common in this section of country than for patients to die of *phthisis pulmonalis* as a *sequela* of *typhoid fever*; not only such as were previously predisposed, hereditary or otherwise; but many cases have fallen under my own observation, where the cases were long, tedious, and grave, from the severity of the attack, want of proper treatment, or mal-treatment, from being subjected to a severe *mercurial course*, that died of consumption in the end, that were of healthy *parentage* and *ancestry*, so far as could be ascertained. And this remark applies strictly to other diseases of a *low grade* or *typhoid type*. And this view of the subject satisfactorily accounts for the fearful increase of consumption since the prevalence of typhoid fever, and the prevailing typhoid type in all diseases; inducing great *debility* and tedious convalescence. 2nd. That whatever tends to diminish or curtail a due amount of atmospheric air to the lungs, induces *debility of the whole system, and more especially of the respiratory apparatus*; still diminishing further the respiratory function; thereby causing an inability in the the organ itself to consume a sufficient amount of pure atmospheric air, consistent with the healthy demands of the system; hence the *debilitating train* of symptoms that invariably follow such causes. And in this fact, is a satisfactory solution, why it is that persons of *sedentary* habits, and whose avocations in life, not only subject them to confinement in close rooms, but compel them to remain in a bent posture for hours at a time daily, are much more liable, to tubercular *phthisis caeteris paribus* than those individuals whose avocations and professions in life require daily exercise in the open air, and where they can maintain a *suitable posture for the perfect inflation of the lungs*. Nothing is more common than for persons to speak of the *consumptive form* or *build of body*; and this too, as well out of, as in the profession. So familiar is this *consumptive appearance*, that all observe it amid the daily transactions and scenes of life. And this consumptive predisposition from conformation of body, invariably consists in a *diminution of the chest*, either in width, or depth, or both, and consequently its capacity to consume atmospheric air, hence debility from lack of a sufficiency of

oxygen being introduced into the system through the lungs, to purify the blood, so as to furnish all parts of the system with a *pure, healthy, invigorating, and vitalizing fluid*. This consumptive conformation, may be *hereditary* or *acquired*, and in either case, afterwards be *transmitted* to *future generations*. And this is one of the principal means by which this disease is spread and propagated in our day and generation. *Artificial compression* from *fashion*, as *tight lacing*, &c., from habit or occupation in any business, that causes the shoulders to *encroach upon the lungs*, by pressure upon the *parities* of the *chest*, so as to *diminish* its *bony cavity*; consequently the size and capacity of its contents. Such causes are prolific of tubercular consumption. The respiring of impure or *vitiating atmosphere* from too many persons being crowded together in too small a space; rooms being *illegally ventilated*, or where a number of persons are forced to *re-respire* the *same gasses* long after they have been *exhausted* of their *vitality*, as in the case of the "Black Hole at Calcutta, where a number of persons, (one hundred and forty-six) were crowded together in so small a space and forced to remain during the night (notwithstanding their entreaties and incessant cries for breath) that only *twenty-three* were found surviving the next morning." Consumption is a disease (we would remark in further proof of its origin in debility,) that has arisen and progressed with civilization; having been almost wholly unknown to the aborigines of this country, until introduced among them by the European race. In order to prove that debility is at the foundation of most, if not all cases, of genuine *tubercular consumption*, we have instanced its frequency as *sequela*, in other diseases; often the system had become much relaxed and debilitated; and also that persons leading sedentary lives, in-door occupations and professions, fashions and habits, injurious to health, by acting directly upon the lungs—lessening their respiratory functions—all tending directly, or indirectly, to local or general debility. *In a word, any and every thing, that has a tendency to undermine the constitution, predisposes to consumption* in all cases where there is the remotest family taint of a *scrofulous* or *tuberculous* character.

Varieties.—All that has been said in relation to consumption, applies more properly to *tubercular phthisis*; and mostly traceable to *hereditary taints* and *predispositions*—and developed by some exciting cause or causes. Our remarks upon tubercular consumption are intended as general, and apply with equal force to all varieties of a tubercular character, as we have been speaking mostly of the remote and exciting causes of this disease, its mode of propagation, nature, origin, &c. There are probably varieties of this disease, that we have not met with in practice; however, as we remarked in the outset, the design of this article was more for the purpose of giving publicity to our views than to again compile what others had said and done. We will not speculate upon unknown varieties to us. Individuals in the prime of life are most obnoxious to this fell destroyer; though no *age* or *sex* is exempt, from the *infant at the breast to the most aged of the land*. We have seen the suckling ere the bud had began to open, and the gray headed sire even three score and ten, equally suffer and succumb to this monster of maladies. Puberty is the age or period of life that a great many contract consumption; especially those of the female sex. A failure to establish the function of *menstruation*, so important to the future health and welfare of the young female, induces debility, and predisposes to consumption, in the *scrofulous* and such as are obnoxious from a hereditary tendency, natural or artificial, conformation of body, &c., &c.; but the most lamented cases are probably those of the young married female, who falls a victim to consumption brought on by the debility induced from *child-bearing* and *lactation*, in the prime of life, and bloom of youth, leaving a husband and young children to deplore their untimely loss of a wife and mother. *Chronic consumption.*—We have been watching several cases of this variety, its progress, and march, for several years. The general course is not unlike the acute; there is less fever, and the whole train of symptoms are much less rapid, in their march and progress—patients most generally being confined to their rooms during the more severe winter months, and crawling forth during the spring, summer and first autumnal months; housing again on the approach of winter.

This variety of patients are generally beyond the middle period of life, of industrious and temperate habits, habituated to much out-door exercise, and were not overtaken by the disease until old age so far debilitated them that the disease finally gained the ascendancy, and proved fatal; which it invariably does in this variety of *phthisis pulmonalis* and class of patients. *Latent consumption*, we have not often met with; but sufficiently often to be satisfied, that consumption may run its entire course, and prove fatal, exhibiting few, if any, of the usual train of symptoms so well known to exist in this disease, save those of a constitutional character, such as early, and *regularly progressing emaciation*, *unusual weakness*, not easily to be accounted for by the patient or his friends, *night sweats*, *diarrhœa*, &c., &c. There is a variety of this disease contracted from *neglected colds*, over *strains*, *local injuries* received upon the lungs, or any other cause that first induces hemorrhage (*hæmoptysis*) from the lungs in persons otherwise healthy and without trace of *hereditary* or *tubercular* taint, that is troublesome, and will prove fatal, if too long neglected, without the formation, or existence of tubercle. The course, progress, and general symptoms of this variety of consumption, differs but little from an ordinary case of *tubercular consumption*. It is essentially a destructive *ulceration* of the lungs, though not from *tubercle*, deposited in the *parenchyma* of the organ.

Treatment.—We will remark in the outset, that we *believe consumption to be a curable disease,* if taken *intime*, and *properly managed*. If called to a patient that is confined to his room and bed, we do not think of any thing more than to give *palliative remedies* and to smoothe the sufferer's path from this to another mode of existence. But if the patient is yet in the *incipient stage* of the disease, and can exercise in the open air to any extent, if ever so small, we direct *horseback exercise*, *daily*, to the *utmost* of his *ability*, so as not to fatigue injuriously; though a small amount of fatigue (as I have seen time and again) only insures a better night's rest, less cough, and less sweating, with increased appetite. We direct the patient to keep himself *erect*, shoulders well thrown back, bowels regular, with the use

of as little medicine as possible of any kind; using at all times, good nourishing diet, in such quantities as the digestive powers will readily make way with; full inspirations, and often repeated through the day, and when awake at night, so as to force the air if possible to enter the lungs to their remotest air vesicles.

This course of exercise, with proper erect posture, and practice of frequent and deep inspirations, regular and temperate habits, in all things, must be persevered in, and know no bounds this side of a perfect recovery. The patient must wear flannel next to the skin the year round, and the rest of his clothing be proportioned to the season, climate, and vicissitudes of the weather. This exercise on horseback may be taken in moderately rough weather, with the patient sufficiently protected from damp and excessive cold; avoiding sudden changes more than any thing else, especially from warm to cold, and dry to damp weather. Damp seasons are certainly the most unfavorable for the consumptive invalid of any other kind, and especially damp or wet feet should be avoided on all occasions and under all circumstances. Daily sponging with water at such temperature, as is compatible with the stage of the disease and condition of the patient, is an excellent means of cure, followed up by the use of rough towels or flesh brush. The skin should be kept clean and active by daily attention, so as vicariously to assist the lungs (in their weak condition) to perform the important office of removing poisonous and effete matter from the system, and in this way preserve the balance in the animal economy, lost by a lack, or want, of sufficient action in the lungs to perform their whole duty or function, as in health. The bath—warm, tepid, or cold—may be used to advantage, if well timed, and properly directed, by an experienced physician; but fraught with danger if not well timed or badly executed. Exercise in a carriage, or wagon; or on foot, is not so good as on horseback, though the former answers a good purpose. Working or traveling on foot may be decidedly injurious if carried to too great fatigue, or over heat, and bring about early or probably fatal hæmoptysis. If spells of excitement come on, and fever manifest itself; it should be met promptly by appropriate treatment such as abstemious diet,

freeing the bowels, the use of mucilaginous drinks, &c., will be found all that is necessary. If time and space admitted, we could give many interesting cases treated in the above simple manner, with the most satisfactory results.

Case 1st and 2419 of my recorder.—L. E. Cantrell aged 30 years, married about five years, of moderately robust constitution, and worked upon the farm for a livelihood. Predisposed to consumption in no other way, only by confinement of body; he was somewhat stooped over, and flat-chested; one side a little more flattened than the other, (right lung.) After his health had suffered considerably, without apparent cause he was suddenly attacked with *hæmoptysis*, accompanied with some pain in the right side of the chest, *fever*, &c. His health now began to fail more rapidly; *emaciation* and other constitutional symptoms now showed themselves, in addition to his *local* symptoms; hemorrhage occurring every few days, though not so profuse; as his cough and expectoration increased, the bleeding from the lungs diminished in quantity, and at lengthened intervals, until it entirely ceased.

Treatment.—This was essentially the same as that laid down in this article, save that adopted for the arrest of the hemorrhage in the onset of the attack, which was more active. He was directed to take *horseback exercise* to the utmost of his ability and strength, daily, with full directions as to attitude and posture, in walking, riding, and when in the recumbent position. He was directed to *fully* and *freely inflate* the *lungs* at all times, and to acquire a habit of so acting if possible. When this patient first mounted his horse, he had to be assisted in getting on and off. He rode daily unless it was so *wet* that nobody ventured out, and soon thereafter was elected district collector, and did a regular business in that line for some years, and regained his health perfectly, and was even stouter and more fleshy than before. This patient improved gradually, from the time he commenced his horseback exercises, until he considered himself entirely restored.

ART. XXXVII.—*Medical Practice in the Cherokee Nation West.* By J. P. EVANS, M.D., late of Tazewell, Tennessee.

Case of Typhoid Pneumonia.—Oct. 23rd.—Visited Mrs. Smith, (generally known as Mrs. Webber,) a respectable widow lady, (full-blooded Cherokee,) aged sixty years; large and corpulent. Saw her the fourth day from the invasion, early in the night. Found her with unequally distributed temperature; head, chest and abdomen hot, and extremities moderately cool; pain in the right side of the thorax; harrassing cough, with muco-sanguinous expectoration; dermoid surface somewhat shrivelled, and very dry; pulse, 108 to the minute, and intermitting. The invasion had commenced with a chill; and the aggregate of the symptoms denoted feeble and imperfect re-action. She had taken a dose of some kind of purgative pills, which had operated a day or two before my visit.

R_x. S. quinine, 25 grs., divided into eight portions. To each portion were added,

Opium.

Ipecac aa. 1 gr.; to be given every three hours.

After two portions were taken the opium was omitted, on account of narcosis, or a tendency to coma.

24th.—Morning. Pulse, 108; slight perspiration occasionally.

R_x. The quinine and ipecac, continued as previously. Warm diluents.

Night.—Pulse, 120 to the minute and small; skin dry; cough has been moderate ever since the first portion of medicine was taken; it contained *opium*.

R_x. S. quinine.

Dover's powder.

Camphor pulv. aa. 4 grs. Dose.

To be taken every three hours. Perspiration commenced half an hour after taking the first portion, and continued freely through the night.

25th.—Pulse, 106, and more volume; expression of countenance better; still expectorated a bloody mucus, but less frequently, and in smaller quantity than before. There was great drowsiness, but the patient was easily aroused.

R_y. The same continued, every three hours.

26th.—Morning. Found her with a pulse 100 to the minute, and of good volume; still drowsy, but the sleep was disturbed by frequent startings; no delirium; perfectly sane when awake, although frequently hearing, (or dreaming of hearing,) illusory sounds and objects; coughed but seldom, and the sputa were free from blood.

R_y. Dover's powder 5 grs.

Sub-chloride of mercury 2 grs. Dose.

To be taken night and morning. Also a teaspoonful of an infusion of senega and senna, was directed to be given every three hours.

27th.—No material change, except that there was slight prostration, the bowels having acted rather freely.

R_y. Paregoric, 3ss, every two hours, until the bowels should be quieted; also a little whisky toddy was directed.

28th.—There had been no disturbance of the bowels since the afternoon of the day previous; otherwise the patient was in *statu quo*; she had neither grown better nor worse.

R_y. Paregoric.

Tinc. of tolu, aa 1 part.

Simple syrup 4 parts. A

teaspoonful every three or four hours.

30th.—Found a more decided febrile movement than at the previous visit, (slight, however,) and expectoration more difficult.

R_y. Ipecac gr.ss.

Carb. soda grs.x. Dose.

To be taken every two or three hours. Also, when the cough was harrassing, the following was directed to be taken occasionally:

R_y. Syrup of squills.

“ ginger, aa.

S. morphine, one-twentieth gr. to every fluid drachm.

Nov. 3rd.—Found the patient much better, in every respect.

Ry. Sulphuric acid, diluted . . . gtt.xv.; three times a day. As there was sometimes cough, the following was directed:

Ry. Paregoric ʒiij.
Ipecac gr.xv.
Molasses.

Water, aa ʒiij. Two teaspoonfuls three times a day.

This was one of the perplexing cases, which assume something of a sub-acute character, and although demanding treatment, do not justify prompt and decided measures; mild remedies subserve the purpose. At the close of such a case, the practitioner does not know to which of the remedial agents employed, to ascribe the most value.

Intermittent Fever, with enlarged spleen.—Oct. 25th.—Visited Sawny Downing, aged about twenty-six years, who had been prostrated several days. Found the case to be one of quotidian intermittent, with enlarged (and somewhat painful) spleen.

Ry. S. quinine 20 grs.

Piperine 5 grs.; Mixed, and made into eight pills. One every two hours, so as to consume the whole before the next paroxysmal period.

The tincture of iodine was also directed.

31st.—No paroxysm had occurred since taking the quinine and piperine. There was still some pain within a circumscribed point in the region of the spleen.

Ry. Blue mass 5 grs.

S. morphine $\frac{1}{2}$ gr.; To be taken at night, and a scruple of sublimed sulphur the next morning. The same to be repeated in two days. To resume the use of the tincture of iodine, from five to ten drops, three times a day.

I afterwards attended him in another disease, and heard no complaint in regard to the spleen.

Intermittent Fever, with cough.—Oct. 26th.—A child of Tatwell Post, under two years of age. A relapsing case, with chronic cough resulting from measles.

R. Sublimed sulphur, 2 grs., three times a day. The ague was mild, and under the use of the sulphur, subsided in three or four days.

In 1849, Dr. J. G. M. Ramsey, (the eminent historian of Tennessee,) informed me that he had often prescribed sulphur in intermittents with decided benefit.

Pertussis.—Oct. 27th.—An infant child of James Chambers, less than two months old, had whooping cough. For two or three days the patient had been worse than usual. The danger of suffocation seemed imminent, and there was a slight febrile condition.

R. Ipecac, 1 gr., immediately. This induced vomiting, by which a considerable quantity of a frothy mucus was ejected.

R. S. quinine, 6 grs., divided into six portions. One every two hours, commencing late in the afternoon. Ext. belladonna, one-thirtieth gr., three times a day. Ipecac was also directed to be given, as above, if necessary.

The child did remarkably well.

The quinine was given both as an anti-periodic and anti-spasmodic. I fully adopt the opinion of Drake, in respect to the medicinal actions of quinia—"anti-periodic and anti-spasmodic narsotic."

Enlargement of spleen.—Oct. 28th.—Paul Choteau, a young man, (French and Osage,) had been afflicted with an enlargement of the spleen for several years. Occasionally it became quite painful.

R. Tinc. iodine, 5 drops, three times a day, gradually increased to ten drops. He was also advised to paint the tincture over the enlarged organ, every day or two. He resided a considerable distance from me and I did not (and have not) learned the result.

The precipitated carbonate of iron, exhibited according to the method of M. Gimon, physician at Thouars, (*Dunlison on new remedies*, 6th ed., p. 378,) has been used in one case only, in my practice. The spleen was enormously enlarged, and did not greatly diminish; but other beneficial effects resulted. The case will be fully detailed in its proper place.

Complicated Intermittent Fever.—Oct. 28th.—Levi Keys, aged about 25 years, merchant, had been sick for two weeks. Two other physicians had been in attendance, and had given quinine freely. He complained of occasional febrile excitement, a dull heavy feeling, almost amounting to stupor; now and then a troublesome cough, with but slight expectoration.

Found him clear of febrile excitement; pulse slow, and of small volume; loss of appetite; an icterode condition of the eyes, and the cutaneous surface also jaundiced, and dry; tongue moist and slimy.

As quinine had been freely taken, I did not deem it necessary to resume its use.

R. Ipecac 16 grs.

Carb. soda 3jss.

“ magnesia 3ss.; Mixed,

and divided into sixteen portions. Also half a teacupful of a cold infusion of the bark of *Prunus Virginiana*, three times a day.

30th.—Cough had diminished, but there had been a febrile paroxysm.

R. S. quinine.

Ginger pulv., aa 30 grs., divided into eight portions. One every two hours. Also a small quantity of sublimed sulphur was directed to be taken twice a day, and an occasional dose of the soda mixture prescribed at my first visit.

31st.—The patient appeared to be better in every respect, and I did not suppose another visit would be necessary.

R. Tinct. iodine, 5 drops, three times a day, gradually increased to ten. An occasional dose of the soda mixture.

Nov. 2nd.—Again visited the patient by request. There had been a febrile paroxysm yesterday, and also to-day, each one having had a sweating stage, which had not been the case previously.

R. Sol. arsenite of potassa, eight drops at night, and the same three times to-morrow; then, ten drops three times a day for three or four days. He was costive, and three pills, composed of aloes, rhubarb and calomel, ($\frac{1}{4}$ gr. of the latter to each

pill,) were directed to be taken at night, to be followed by an infusion of senna the next morning, provided the bowels did not act in the meantime.

No other febrile paroxysm occurred. Convalescence was rapid.

Perhaps there was, in this case, sub-acute inflammation, (or a state of asthenic hyperæmia, at least.) of the stomach and duodenum—a thickened engorged condition of the mucus coat—which extended, by continuity, to the inner surface of the ductus communis choledochus, and not only prevented the passage of bile into the intestine, but also modified the usual therapeutical effects of the quinine. The paroxysms of fever may have served to perpetuate this local pathological condition, as the yellowness of the eyes and cutaneous surface did not disappear until a short time after the cessation of the febrile accessions. It is probable that Fowler's Solution would have subserved the purpose, as an anti-periodic, at the time of my first visit.

Uterine Hemorrhage, active.—Oct. 28th.—Mrs. Sarah Barker, aged about thirty years, aborted at (or near) the expiration of the third month of gestation. Considerable hemorrhage attended the accident, and continued for several hours. On my arrival found her with a pulse thread-like, and 120 to the minute, and the complexion exsanguineous; after-pains severe.

R. Opium 1 gr.

Camphor.

Acet. of lead, aa 5 grs. Dose.

To be taken every one, two, or three hours, until hemorrhage ceased to be alarming.

Tinc. muriate of iron, fifteen or twenty drops, three times a day, for three or four days. Then—

Paregoric 3j.

Infusion of ginger 3x.

Dilut. alcohol 3ix.

S. quinine 10 grs.

Mixed. A teaspoonful three times a day.

The first portion of opium, camphor and acetate of lead, exercised, apparently, a considerable influence over the hemorrhage, and three or four portions sufficed. She improved slowly but steadily.

ART. XXXVIII.—*Proceedings of the Tenth Annual Meeting of the American Medical Association, Nashville, May, 1857.*

The Association met at 11 o'clock, in the Representative Hall of the State Capital, the President, Dr. Zina Pitcher, of Michigan, in the chair; and upon his right, Dr. W. K. Bowling, of Tennessee, one of the Vice-Presidents. Dr. Wm. Brodie, of Michigan, and Dr. R. C. Foster, Secretaries, were present.

The meeting having been duly organized, the first business in order was stated by the Chair to be the reception of the report of the Committee of Arrangements.

Dr. C. K. Winston, Chairman of the Committee of Arrangements, on behalf of the Committee, and of the Medical Profession of the city generally, extended a sincere and cordial welcome to the members of the Association, in a few pertinent and appropriate remarks, as follows:

Mr. President and Gentlemen of the American Medical Association:

This I believe, is the tenth annual meeting of this Association. As Chairman of the Committee of Arrangements and Reception, I am charged with the agreeable duty of welcoming you to the State of Tennessee and the city of Nashville. I only regret that I have not language to express this sentiment with sufficient cordiality. I only add, gentlemen, in common phrase, "You are more than welcome."

You are the representatives of a profession, distinguished alike for its antiquity, its scientific attainments, and its usefulness. It constitutes the true link between science and philanthropy—science and philanthropy, moral, intellectual and physical. You come from every portion of this glorious Republic—from the Kennebec to the Rio Grande—from orange groves and golden sands—from mountains clad in eternal snow, and valleys smiling in perpetual verdure. You come not for purposes of self-aggrandizement or personal ambition, nor yet to advance the schemes of parties or stir up the antipathies of sections. "You know no North, no South, no East, no West;" but you come as a company of philanthropists, a band of brethren, that you may pour the acquisitions of another year into a common treasury, kneel side by side at a common altar, and drink the living water as it gushes from a common fountain. You have come to maintain the dignity, to elevate the ensign of a profession, to which you have devoted your lives, and to which you have linked your fortunes.

You are the cultivators of a profession eminently progressive, and admitting to the fullest extent the spirit and genius of enterprise. So

much may not be so fully said of others. Who could expect at this or any other day, to embellish the Commentaries of Blackstone, or improve the pleadings of Chittry, or reposit the scales of justice? Where are the men with commissions never so divine who would attempt to recast the logic which made Felix tremble or adorn the doctrine of justification by faith? Who hopes now to shed additional light in the pathway to the skies, or sing in strains more immortal than the triumphs of the Cross? Not so with medicine; yours is a rising orb—magnificent in its proportions—while others have reached the zenith, yours has but begun to mount the heavens—while others have begun to fade, yours knows no eclipse, nor decline. You revere the names of Hypocrates and Sydenham, of Brown and Cullen, with a host of others; you treasure up their maxims, and admire the genius with which they struck out new truths, but you acknowledge no *master*, you fall down at the feet of no *Gamaliel*. You have come to the day of free thought, of free investigation, and free speech. You call in question the most hoary, as well as the most recent fact, and you are daily revealing, in floods of light, principles hid from the foundation of the world.

You are eminently the students of nature. While others may be led along dubious paths by mortal pedagogues, your teacher dwells in the realms of eternal light and guides with hand unseen and unerring to essences and first causes. The formative crystal and germinal dot are alike transparent before you. You are taught the mysteries of the living principle; the scalpel and retort are your companions, while you revel in the wonders of the microscopic world. You understand, somewhat, the laws by which a mote or a mountain is formed, a monad or a man is made. The spear of grass which lifts its head in the distant solitude, the lordly oak and imperial cedar, instruct you, while air and earth and sea, with the creeping multitude, yield treasures at your command.

You are the veterans of a thousand battle fields—not of mortal strife where man meets man in sanguinary conflict; but where a secret and impalpable foe—a tyrant who has reigned from Adam till now, disposes his secret forces and directs their deadly shafts. When others have turned back affrighted and aghast, you, single-handed and alone, have met “the pestilence which walketh in darkness, and the destruction which marcheth at noon-day,” despoiled them of “the armor wherein they trusted,” and have driven them, ignominious, from the field.

Were the victories which you have won, the conquests which you have achieved known, you would be crowned with laurels more unfading than those which entwined the brows of Greek or Roman conquerors.

But more and better than all, you are the lovers of your race, the friends of humanity. Scattered about all over this happy land, you emphatically “go about doing good.” Your hearts beat in unison with human wo—your ears are open to the cry of human distress, whether it come from the hovel or palace—you “wipe away the orphan’s tear and cause the widow’s heart to sing for joy”—upon your heads daily descend “the blessings of those who were ready to perish.”

To such a body of men thus actuated, thus coming, we extend a cordial welcome. We feel honored by your presence and expect to be improved, and elevated by your intercourse. We throw wide our doors and invite you to the hospitalities of our homes, and to the kinder affections of our hearts.

Dr. Winston then proposed that the roll of delegates, who had registered their names, should be read. The roll having been called, it appeared that twenty States were represented.

The following list comprises the names of all delegates, permanent members, and members by invitation, in attendance at the opening of the session :

Connecticut.—Charles Hooker.

New Hampshire.—Adoniram Smalley.

New York.—James R. Wood, D. M. Reese, Geo. N. Burwell, and Alden March.

Pennsylvania.—Robley Dunglison, B. F. Schneck, Casper Wister, and P. Cassidy.

Georgia.—Henry F. Campbell, C. R. Walton, N. F. Powers, A. H. Means, Joseph P. Logan, M. H. Oliver, Thomas S. Powell, J. Gordon Howard, R. D. Arnold, Geo. P. Padleford, and Pike Brown.

Alabama.—G. M. Merriweather, W. P. Reese, A. F. Alexander, S. W. Clanton, W. H. Thornton, P. C. Winn, S. Stith Malone, W. J. Bass, G. N. Norris, J. F. Sowell, and J. W. Morris.

Tennessee.—Frank A. Ramsey, James Rodgers, R. O. Currey, B. B. Lenoir, J. L. C. Johnston, Jno. M. Boyd, Geo. R. Grant, T. A. Atchison, S. S. Mayfield, J. D. Kelley, T. L. Maddin, J. D. Winston, J. E. Manlove, G. A. J. Mayfield, Richard Owen, W. P. Jones, G. F. Smith, J. F. Burford, Jno. P. Ford, Robert C. Foster, Jno. H. Callender, John H. Morton, A. H. Buchanan, James W. Hoyte, N. C. Perkins, Jno. B. Lindsley, C. K. Winston, Paul F. Eve, (permanent member,) W. P. Moore, Milo Smith, Wallace Estill, B. W. Avent, H. H. Clayton, H. M. Whittaker, H. B. Manlove, T. M. Woodson, A. Ewing, Robert Martin, W. K. Bowling, P. S. Woodward, R. F. Evans, Thos. Lipscomb, M. Ransom, J. A. Long, Jno. M. Watson, W. D. Haggard, Jno.

S. Park, D. B. Cliff, T. G. Kennedy, T. R. Jennings, Ira Conwell, W. H. Childress, W. A. Cheatham, J. F. Towns, J. M. Brannock, B. C. Jilson, P. W. Davis, W. A. McNutt.

Louisiana.—S. O. Scruggs, Robert A. New, Cornelius Beard, and E. D. Fenner.

Kentucky.—Samuel Annan, R. W. Gaines, J. B. Flint, J. W. Singleton, R. J. Breckinridge, S. C. Porter, W. S. Chipley, S. M. Bemiss, L. G. Ray, W. A. Atchison, E. G. Davis, L. E. Almon, D. W. Yandell, R. T. Fleming.

Indiana.—W. H. Byford, W. W. Hitt, Isaac Mendenhall, T. Bullard, N. Johnston.

Illinois.—J. C. H. Hobbs, A. H. Luce, James M. Steel, E. K. Crothers, T. K. Edmiston, W. A. Hills.

Missouri.—S. Pollak, E. S. Fraser, Jno. S. Moore, C. A. Pope.

Michigan.—A. B. Palmer, L. G. Robinson, Zina Pitcher, Wm. Brodie, L. H. Cobb, M. Gunn, Lewis Davenport, P. Cline, M. D. Stebbins.

Iowa.—Asa Horr, Wm. Watson, D. L. McGugin, J. C. Hughes.

Ohio.—Henry F. Koehne, J. M. Mosgrove, B. S. Brown, D. Ferris.

Wisconsin.—Hayes McKinley, J. K. Bartlett.

South Carolina.—E. R. Henderson, M. S. Moore, R. W. Gibbes, R. S. Bailey.

Mississippi.—F. B. Shuford, J. S. Cain.

Arkansas.—F. Grundy McGaveck.

The Chairman of the Committee then presented the names of Dr. Felix Robertson, Dr. John Shelby and Dr. James Overton of Davidson county, with the request that they be elected permanent members of the Association.

A motion was made to that effect, which prevailed, and the above named fathers in the profession were invited to participate in the proceedings of the Association.

The President then stated that it was customary to take a recess of fifteen minutes in order that the different State Delegates

tions might appoint a member to serve on the Committee on Nominations, and the Association took a recess accordingly for that purpose.

At the expiration of the recess the Association was called to order, and the State Delegations then reported their choice respectively, of delegates to serve on the Nominating Committee, which was constituted as follows:

Charles Hooker, Conn.; Adoniram Smalley, N. H.; W. W. Hitt, Ind.; J. R. Bartlett, Wis.; James R. Wood, N. Y.; A. B. Palmer, Mich.; J. S. Moore, Mo.; J. K. Edmiston, Ill.; R. J. Breckinridge, Ky.; F. Grundy McGavock, Ark.; B. S. Brown, Ohio; R. W. Gibbes, S. C.; W. P. Reese, Ala.; F. B. Shuford, Miss.; Richard M. Cooper, N. J.; S. O. Scruggs, La.; P. Cassiday, Penn.; Thomas S. Powell, Ga.; J. B. Lindsley, Tenn.; Asa Horr, Iowa.

On motion of Dr. Hooker, of Connecticut, it was resolved that the President, Dr. Pitcher, be now requested to deliver his annual address.

The President then delivered the Annual Address, whereupon, on motion of Dr. Flint, of Ky., the thanks of the Association were unanimously tendered to the President, for his very able and interesting address, and that it be referred to the Committee on Publication.

The Chairman of the Committee of Arrangements reported that the sessions of the Association will be held from 9 o'clock, A. M., until 2 o'clock, P. M.

Judge Catron, of the U. S. Supreme Court, being present, was invited to a seat on the stand.

The Nomination Committee then retired for the purpose of nominating officers for the ensuing year.

The report of the Committee on Publication being called for, it was read by Dr. Casper Wister, of Pennsylvania, and on motion, was accepted and referred to the Committee on Publication.

Dr. Wister also read his Report as Treasurer, which was received and adopted.

The Committee on Medical Topography and Epidemics being

called, a communication from Dr. J. C. Watson, of Maine, was read, asking for further time to make a report, which was granted.

The President informed the Convention that Dr. F. Campbell Stewart, of N. Y., Dr. Alden March, of N. Y., Dr. Isador Gluok, of N. Y., and Dr. Pancoast, of Penn., had been appointed to represent this Association in foreign scientific bodies.

Dr. Arnold, of Ga., offered the following resolution, which was adopted :

Resolved, That the Committee on Nominations be constituted a standing committee during the present session of the Association, to whom shall be referred all business of the Association on which an immediate vote is not required.

Dr. Jas. Mauran, of the Committee on Medical Topography and Epidemics for Rhode Island, being called for, the Secretary read his apology which was accepted.

Dr. Peregrine Wroth, of same committee, for Maryland, sent in his Report, with accompanying reports of Drs. A. M. White and Edmond W. Waters, which were received and referred to the Committee on Publication.

Dr. W. F. Sutton, of same committee, for Kentucky, sent an apology and asked for further time, which was granted.

The members of the same committee for the State of New Hampshire, Vermont, Massachusetts, New York, New Jersey, Pennsylvania, Delaware, Virginia, District of Columbia, South Carolina, North Carolina, Tennessee, and Minnesota, being called, no reports were made.

The Delegates from Connecticut and Louisiana being absent for the time, the consideration of their reports was postponed until to-morrow.

A report from Dr. J. F. Posey, of Georgia, was presented by Dr. Arnold, and subsequently withdrawn by him for the purpose of preparing an abstract of it.

The Committee on Nominations then appeared, and through their Chairman, Dr. J. B. Lindsley, reported the following officers of the Association for the ensuing year, viz :

President.—DR. PAUL F. EVE, of Tennessee.

Vice-Presidents.—R. J. BRECKINRIDGE, of Kentucky, D. M. RENNE, of New York, W. H. BYFORD, of Indiana, and HENRY F. CAMPBELL, of Georgia.

And, on motion of Dr. Arnold, of Georgia, the Report was accepted.

The Chairman stated that Secretaries will be selected when it is ascertained where the next meeting of the Association will be held.

Dr. Wister, of Pennsylvania, moved that a committee of three be appointed by the President to conduct the newly elected officers to the Chair, which was carried.

The President appointed as such committee, Drs. Wister, Arnold and McGugin.

The President elect being absent, the Association adjourned to meet at 9 o'clock, A.M., to-morrow.

SECOND DAY:

The Association met pursuant to adjournment,

The minutes of yesterday were read and adopted.

The newly elected officers were then inducted to their respective seats.

Dr. Eve, of Tennessee, in taking the chair, addressed the Association,

Gentlemen of the American Medical Association:

It is with deep emotion I attempt to return you my heart-felt thanks for this distinguished honor. In elevating one so unworthy of this station, so ill-prepared to preside over your deliberations, or carry out the great designs of this body, I must express the apprehension that you have done yourselves injustice, and, it may be, not advanced its best interests. But, believing that the office should neither be sought nor declined, when tendered as it has been, after my State had declined to take any part in the nomination of a presiding officer, I enter upon the discharge of its onerous duties with much diffidence, and shall have frequent occasion to throw myself upon your considerate indulgence.

We are engaged, gentlemen, in a good and noble work. Life, the greatest of human blessings, and health, the sweetest stimulus to earthly enjoyments, are our end and aim. We live to secure the one and to preserve the other. To promote these all-important objects, the medical profession of our country have, during the last twelve

years, annually appointed delegates to assemble and counsel how this may best be effected. And we are here to-day on one of these great festive occasions, and, amidst our congratulations, these glorious reunions of good-will and fellowship among the brotherhood, must not forget that to us is committed the health and lives of others. In maintaining the honor and increasing the usefulness of medical science we become the best contributors to the welfare and happiness of those around us. You have come up hither from the North and from the South, from the East and from the West, and have done well neither to count the costs nor calculate the sacrifice; for the cause in which you are engaged is worthy of you. You present again the sublime spectacle of brotherhood from all sections of this widely extended Union, congregated to devise the best means to relieve suffering humanity; and may I not add,

"Our souls by love together knit,
Cemented, mixed in one;
One hope, one heart, one mind, one voice."

Dr. Winston, of Tennessee, read the names of additional delegates to the Association.

Dr. Hooker, from the Committee on Medical Topography and Epidemics for the State of Connecticut, being called on for his report, arose and explained that it was his understanding that the committee were to have three years in which to make their report, and at the end of that time he would either be prepared or ask the indulgence of the Association for further time.

The President appointed Drs. Currey, Grant and Evans, a Committee on Voluntary Contributions.

The report of Dr. Posey of Georgia, on the same subject, being called for, Dr. Arnold, of Georgia, read an abstract of the Report of Dr. Posey; all of which, on motion of Dr. Palmer, of Michigan, was referred to the Committee on Publication, under a suspension of the rule.

On motion of Dr. Wood, of New York, the reports which were presented yesterday were also referred to the Committee on Publication, under a suspension of the rule.

The State of Ohio being called upon for a Report upon its Medical Topography and Epidemics, the Secretary read an apology from Dr. G. Mendenhall, who asked further time to make a report which was granted.

The States of Mississippi, Missouri, Michigan, Illinois, Indiana, Wisconsin, Iowa, California, and U. S. Navy, being called, no response was made.

A telegraphic despatch from Dr. J. M. Sims, of New York, who was to report on the Treatment of the Results of Obstructed Labor, which was referred to the appropriate committee.

A communication was received from the Southern Methodist Publishing House, inviting the members of the Association to visit that establishment, which was received and accepted.

A communication was read by Dr. Lindsley, of Tennessee, from the Medical Association of Washington City, inviting the National Association to hold their next annual meeting in that city. On motion, the communication was referred to the Committee on Nominations.

A resolution was offered by Dr. Bartlett, of Wisconsin, tendering a vote of thanks to the late President of the Association, Zina Pitcher, for the able manner in which he has presided over the deliberations of this body, which was unanimously adopted.

The reports of Special Committees for 1856-7, being next in order, they were called in order as follows :

Inflammation—its Pathology, etc.—Dr. E. R. Peaslee, Maine; asked further time. Referred.

Anatomy and Histology of the Cervix Uteri.—Drs. H. Hutchinson and Charles E. Isaacs, New York; no report.

Treatment of Cholera.—Dr. J. Taylor Bradford, Kentucky; no report.

Treatment best adapted to each variety of Cataract, etc.—Dr. Mark Stephenson, New York; further time asked. Referred.

Causes of the Impulse of the Heart, etc.—Dr. J. W. Carson, New York; a communication received. Referred.

Causes of Infant Mortality, etc.—Dr. D. Meredith Reese, New York; read an abstract of his report, which was referred to the Committee on Publication.

The venerable Dr. Shelby of Tennessee being present; was invited to a seat on the stand. His appearance was warmly acknowledged.

Dr. Hobbs, of Illinois, offered the following resolution:

Resolved, That a committee on Essays, (not including Prize Essay,) be appointed, to whom all essays prepared by members for publication by this Association shall be referred, which committee shall transfer to the committee on Publication, all essays they judge worth publishing. That said committee on essays, make a full report of their proceedings to the Association at its next annual session; provided, authors of rejected essays being informed of said rejection, by said committee, shall have the privilege of withdrawing their essays from the report of the committee to the Association.

On motion of Dr. Palmer of Michigan, the resolution was indefinitely postponed.

The Secretary read a protest signed by Drs. Richard Arnold, J. Gordon Harvard, Pike Brown, Geo. P. Paddelford, against admitting the delegates from Oglethorpe Medical College.

Dr. Benson, delegate from that Institution, by motion was allowed to address the Association. He spoke with much feeling giving suitable reasons why some of the chairs had not been filled in that College, and why the protest had been offered, that it had been signed by Professors and graduates in a College which had for several years past been directly opposite to them.

Dr. Arnold, of Georgia, arose. He said that one of the signers was a graduate of Tennessee, and in a great state of excitement demanded whether the gentleman denied it.

Order was called for and Dr. Benson stated he had been so informed and that if he was mistaken, he would like to be corrected in a gentlemanly manner.

Dr. Buchanan, of Tennessee, regretted that a fire-brand had been thrown into this Association, and he hoped the matter in question would be dropped.

On motion of Dr. Gunn, of Michigan, the protest was laid upon the table, and

On motion of Dr. Palmer, the whole subject was referred to a committee of three to be appointed by the Chair.

Dr. Brodie, of Michigan, moved as an amendment, that no Faculty Member of a Medical College be appointed upon the committee, which was accepted by the mover.

The Chairman appointed as such committee, Drs. Wister, of Pa., Bemis, of Ky., and Gibbes, of S.C.

Dr. Felix Robertson, the oldest physician in Tennessee, being in attendance, was invited to a seat on the stand. He was greeted with marked consideration by the Association.

The Committee on Nominations was convened to transact important business.

The calling of Special Committees was resumed.

Spontaneous Umbilical Hemorrhage, etc.—Dr. J. Foster Jenkins, New York. Further time asked. Referred.

Use of Instruments in Obstetrical Practice.—Dr. Henry Carpenter, Pennsylvania. No report.

Measures to be Adopted to Remedy the Evils existing in the present mode of holding Coroner's Inquests.—Dr. Alexander J. Semmes, D.C. Report presented, and the following resolution offered:

Resolved, That committees of three, in each State, Territory and the District of Columbia, be appointed, and that said committee be, and they are hereby authorized in the name of this Association, to memorialize their respective Legislatures, to pass such laws as will best carry into effect, the objects of the foregoing report.

The resolution was adopted and referred.

Treatment of the Results of Obstructed Labor.—Dr. J. Marion Sims, New York. Previously acted upon.

True Position and Value of Operative Surgery, etc.—Dr. J. B. Flint, of Kentucky. Further time asked; granted.

Causes and Cure of Indigestion, etc.—Dr. G. Volney Dorsey, Ohio. No report.

Medical Jurisprudence of Insanity, etc.—Dr. C. Coventry, New York. Further time granted.

Human, Animal and Vegetable Parasites.—Dr. Joseph Leidy, Pennsylvania. No report.

Value of strict attention to Position in the treatment of Diseases of the Abdomen.—Dr. M. D. Darlant, Indiana. No report.

Milk Sickness.—Dr. George Sutton, Indiana. No report.

Blending and Conversion of the Types of Fever.—Dr. Clark G. Pease, Wisconsin. Communication sent, but not received. Postponed.

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Best Substitutes of Cinchona, etc.—Dr. B. S. Woodworth, Indiana. No report.

Use of Cinchona in Malarious Diseases.—Dr. Franklin Hickle, Pennsylvania. Report furnished. Referred to committee on publication.

Nervous System in Febrile Diseases.—Dr. Henry F. Campbell, Georgia. Verbal abstract of report given.

Laws Governing the Absorption and Deposit of Bone.—Dr. John Neill, Pennsylvania. No report.

Intimate Effects of Certain Toxicological Agents in the Animal Tissues and Fluids. Dr. John W. Green, New York. No report.

Medical Topography and Fauna of Washington Territory.—Dr. George Suckley, U. S. Army. Report presented and referred.

Flora of Washington and Oregon Territories.—Dr. James Cooper, New Jersey. Report presented and referred.

Intimate Structure and Pathology of the Kidney.—Dr. Charles L. Isaacs, New York. Further time granted.

Diseases Incidental to Emigrants, etc.—Dr. Israel Moses, New York. No report.

Etiology and Pathology of Epidemic Cholera.—Dr. T. W. Gordon, Ohio. Partial report presented and referred.

Excretions as an Index to the Changes going on in the System. Dr. H. A. Johnson, Illinois. No report.

Remedial Effects of Chloroform.—Dr. D. D. Thompson, Kentucky. No report.

Best means of Causing an Increase of the number of Essays, etc.—Committee: Drs. Leidy, Wood and Meigs, Pa. No report. Committee continued.

Changes Produced in Composition and Properties of Milk, etc.—Dr. N. S. Davis, Illinois. Communication read and time granted.

Stomatitis Materna.—Dr. McGugin, Iowa. Further time granted.

An abstract of the report of Dr. Fenner, of La., upon the Medical Topography of that State was then read, and referred.

Dr. Dunglison, of Pa., offered the following resolution, which was unanimously adopted :

Resolved, That in the death of Dr. Grafton, of Miss., the American Medical Association has lost a talented and useful member, and society a benefactor.

Dr. Casper Wister, Chairman of the committee upon the admission of the delegates from Oglethorpe Medical College, reported in favor of their admission, which report was accepted.

The Secretary read the following preamble and resolutions, which were unanimously adopted :

Whereas, It has pleased God to remove by death our fellow-member Robert M. Porter, and because of his devotion to the interests of the Profession of Medicine, and his steady support of the American Medical Association,

Resolved, That this Association has learned with unfeigned sorrow of his decease ; and that they have lost a firm and intelligent supporter, and society a benefactor and friend.

Dr. T. Bullard, of Ind., offered the following :

Resolved, That in the death of Dr. John L. Motherset, this Association has lost a talented and useful member, and society a benefactor.

The Secretary read a communication from the Connecticut Medical Society, asking that the time for holding the meetings of the Association in northern cities be changed to a later period in the year. Referred to the Committee on Nominations with instructions to make a report. Adjourned.

THIRD DAY.

The Association met pursuant to adjournment.

The minutes of yesterday were read and adopted.

Dr. Hoyt, from the Committee of Arrangements, read the names of additional delegates to the Association, who had arrived since the meeting of the Association yesterday.

The Secretary read a communication from Dr. Clark G. Pease, of Wisconsin, which accompanied his report on "*Blending and Conversion of the Types of Fever.*"

Dr. Hooker, of Conn., moved that the report be referred to the committee on Voluntary Contributions.

Dr. McKinley moved to amend by having a portion of the report read, which was lost,

And the motion recurring to refer the report, it was carried.

Dr. Currey, from the Committee on Voluntary Contributions, submitted the following report, which was accepted :

The Committee on Voluntary Contributions has examined the following papers, and recommend them for publication in the Transactions of the Association :

1st. A new Principle of Diagnosis in Dislocations of the Shoulder Joint: By L. A. Dugas, M.D., Professor of Surgery in the Medical College of Ga., Augusta; accompanied by four Protographic plates illustrating the principle.

2d. Medical statistics of Washington Territory : By George Suckley, M.D., U.S.A., embracing—1st. Geographical Divisions of the Territory: its Geology, Meteorology, Fauna. 2nd. White population and its Diseases. 3d. Native population, Diseases, Medical Practice; causes of their rapid disappearance. Concluding remarks.

3d. Medical Flora of Washington and Oregon Territories : By J. G. Cooper, M.D. All of which are respectfully submitted.

R. O. CURREY, *Chairman.*

R. F. EVANS.

GEORGE R. GRANT.

Dr. Lindsley, from the Nominating Committee, submitted the following report :

Committee on Nominations beg leave to report :

Secretaries.—Robert C. Foster, of Tenn.; A. J. Semmes, of Washington city.

Treasurer.—Casper Wister, of Philadelphia.

For the next place of meeting, Washington city.

STANDING COMMITTEES.

Committee of Publication.—Francis G. Smith, of Philadelphia Chairman; Casper Wister, of Philadelphia; R. C. Foster, of Nashville; A. J. Semmes, of Washington city; Samuel L. Hollingsworth, of Philadelphia; Samuel Lewis, of Penn.; H. F. Askew, of Delaware.

Committee on Prize Essays.—Grafton Tyler, of Georgetown, D. C., chairman; J. C. Hall, of D. C.; J. F. May, of D. C.; Thomas Miller, of D. C.; A. J. Semmes, of D. C.; Joshua Riley, of D. C.; W. J. C. Duhamel, D.C.

Committee of Arrangements.—Harvey Lindsley, chairman, W. J. C. Duhamel, Cornelius Boyle, P. H. Coolidge, G. M. Dove, A. Y. P. Garnett, Wm. P. Johnston, of D. C.

Committee on Medical Education.—G. W. Norris, of Philadelphia, chairman; A. H. Luce, of Ill.; E. R. Henderson, of S. C.; G. R. Grant, of Tenn.; T. S. Powell, of Ga.

Committee on Medical Literature.—A. B. Palmer, of Detroit, chairman; A. F. Alexander, of Ala.; J. M. Mosgrove, of Ohio; P. Cassidy, of Penn.; S. Pollak of Missouri.

Vacancies in Committee on Medical Topography and Epidemics.—T. B. Shufard to fill the vacancy caused by the death of Dr. Grafton, of Miss. C. W. Parsons to fill the vacancy caused by resignation of Joseph Mauran, of Rhode Island.

SPECIAL COMMITTEES.

Spontaneous Umbilical Hemorrhage of the newly born.—J. Foster Jenkins, of New York.

Influence of Marriages of Consanguinity upon Offspring.—Dr. Bemiss, of Ky.

Functions of different portions of the Cerebellum.—E. Andrews, of Ill.

Causes of the impulse of the Heart and the agencies which influence it in health and disease.—J. W. Corson, of New York city.

Treatment of the results of Obstructed Labor.—J. Marion Sims, of N. Y.

Treatment best adapted to each variety of Cataract with the method of operation, place of election, time, age, &c.—Mark Stephenson, of N. Y.

Human, Animal and Vegetable Parasites.—Jos. Leidy, of Philadelphia.

Best substitutes for Cinchona and its preparations in the treatment of Intermittent Fever, &c.—B. S. Woodward, of Ind.

Intimate structure and pathology of the Kidney.—Charles E. Isaacs, of N. Y.

Etiology and Pathology of Epidemic Cholera.—T. W. Gordon, Georgetown, Broom co., Ohio.

Inflammation of Cervix Uteri.—H. H. Miller, Louisville, Ky.

On Milk Sickness.—W. H. Byford, Indiana.

Best means of causing an increase of the number of Essays.

—Drs. Leidy, Wood, Meigs of Pa.

Changes produced in composition and properties of Milk.—N. S. Davis, of Ill.

Stomatitis Materna.—D. C. McGugin, Iowa.

On Criminal Abortion, with a view to its general suppression.

—H. N. Storer of Boston.

The Committee recommended that the Committees ordered by the adoption of the resolutions accompanying Dr. A. J. Semmes report be filled by the several State Societies.

On motion of Dr. Brodie, amended so as to refer the same to the officers of several State Societies. Carried.

The Committee recommend the amendment of the third article of the constitution, in relation to *meetings*, by inscribing after the word "first Tuesday in May, the words, *or the first Tuesday in June*, and also by inserting after the words "shall be determined" the words, *with the time of meeting*.

Special Committee on the present state of science, as regards the pathology and therapeutics of the reproductive organs of the female.—D. Fordyce Barker, of New York.

On Moral Insanity.—D. M. Reese, M.D., New York.

On Calculi and Diseases of the Urinary Organs, in Iowa, Minnesota and Nebraska.—Dr. J. C. Hughes, of Keokuk.

On the nature, tendency and general treatment of Syphilitic Bubo.—Moses Gunn, of Detroit.

On Medical Education.—(By Dr. Carey's resolution.)—Jas. R. Wood, of New York; Geo. R. Grant, Memphis, Tenn.; John Watson, New York; C. B. Nottingham, Macon, Ga.; Rene La Roche, Philadelphia, Penn.

To fill a vacancy in the Committee on Medical Topography and Epidemics.—Dr. J. L. Cabell, Charlottesville, Va.

Dr. Marsh moved that the Report of the Nominating Committee be taken up and each subject to which it refers, be considered separately, which motion prevailed. That portion relating to nominations was then adopted.

The place of the next annual meeting of the Association being the next subject in order, after some discussion,

On motion of Dr. Marsh, the report of the committee was adopted,

Dr. Lindsley moved that, as Dr. Semmes, one of the new elected Secretaries was absent, Dr. Brodie, of Michigan, be elected Secretary *pro tem*, which was carried.

Dr. Pitcher offered the following resolution which was unanimously adopted:

Resolved, That a Committee of three be appointed, of which the President of the Association shall be Chairman, to communicate with the Surgeon General of the Army, the chief of the Medical Bureau of the Navy, and the Secretary of the Treasury of the United States, with a view to secure the concurrence of these departments of the Federal government, so that its contributions to the Medical Topography, the Vital Statistics, and the Sanitary Police of the nation may be made tributary to the labors of this Association.

The Chairman appointed as such committee, Drs. Z. Pitcher, of Michigan, and R. H. Coolidge, of Kansas.

Dr. Yandell offered the following resolution:

Resolved, That this Association re-affirm the principles respecting the rights of constituent bodies announced in a Report contained in Vol. V., of its Transactions in the following terms;

"The Faculty of every chartered Medical College, shall have the privilege of sending two delegates to the Association, *provided* that the said Faculty contain not less than six Professors, who give one course of instruction annually, of not less than sixteen weeks, on Anatomy, Materia Medica, Theory and Practice of Surgery, Midwifery, and Chemistry, and also that the said Faculty requires that its candidates for graduation, among other requisites, shall have attended two full courses of lectures with an interval of not less than six months between them, one of which courses must have been in their Institution.

Dr. Breckinridge in the Chair.

Dr. Buchanan proceeded to discuss the resolution, and at the close of his remarks, moved to lay it on the table, which was subsequently withdrawn.

Dr. Boring offered the following resolutions in lieu, which he proceeded to discuss:

Resolved, That this Association has not the power to control the subject of Medical Education.

Resolved, That the great objects of this Association are the advancement of Medical Science, and the promotion of harmony in the profession.

Resolved, That the attempt upon the part of this body, to regulate Medical Education, having most signally failed in its object, and already introduced elements of discord, any further interference with this subject would not only be useless, but calculated to disturb and distract the deliberations of the Association.

Dr. Currey offered the following resolutions in lieu of the whole subject:

Whereas, The subject of Medical Education has been committed at each annual Session to standing committees, and various suggestions have been proposed which the Association has adopted, and recommended to private instructors and to the Medical Colleges.

Resolved, That a committee of five be appointed by the Committee on Nominations, as a Special Committee, to be composed of members who are in no respect connected with any Medical School, to devise a *System of Medical Instruction*, to be presented for the consideration of this Association at its annual Session in 1858.

Resolved, That the proposed system shall set forth an uniform basis upon which our Medical Institutions shall be organized as well as have reference to the best mode of securing the Preparatory Medical Instruction of the Student, and that consequently the legitimate objects to be embraced in said system will include Primary Medical Schools—the number of Professorships in Medical Colleges, the length and number of terms during the year, the requisite qualifications for graduation, and such other subjects of a general character as to give uniformity to our Medical System, and preserve harmony and friendly intercourse in the ranks of the profession.

Resolved, That, upon the adoption of the proposed system by the Association, all Institutions which may conform to it shall be entitled to representation at the Annual Sessions of this Association and none others.

The subject was further discussed by several members of the Association:

Dr. Reese, after some remarks, moved the indefinite postponement of the whole subject; which was lost.

Dr. Arnold moved the previous question which was lost, and the discussion proceeded at considerable length, when

Dr. Hooker moved the previous question on the resolutions of Dr. Currey.

The reading of the various resolutions being called for, they were read to the Association.

The motion of Dr. Hooker being in order the previous question was called and the resolutions of Dr. Currey were adopted.

Dr. Bowling Chairman of the Committee on Prize Essays, submitted the report of said Committee, as follows:

The Committee on Prize Essays report that four Essays have been received, each possessing great merit.

The Committee selected the following two Essays for the two prizes, provided for at the last meeting of this Association.

1st. One entitled "The Excito-Secretory System of Nerves. Its relations to Physiology and Pathology," with the following motto:

"Observation becomes Experiment when used in severe processes of Induction," and signed, Henry Fraser Campbell, Georgia

2nd. "Experimental researches relative to the Nutrition, Value and Physiological Effects of Albumen, Starch and Gum when singly and exclusively used as food," with the following motto.

"Quum sequimur? quare in iubes? ubi ponere sedis?"

Da pater augurium, atque animis illabere nostris!" and signed, William A. Hammond, M.D., Assistant Surgeon, U. S. Army.

The President read an invitation to the members of the Association to visit the University of Nashville, in its Military, Literary, and Medical Departments.

The Committee on Voluntary Contributions, reported in favor of the publication in the Transactions of the Association, of the following paper. "On the blending and conversion of Types in Fever. By C. S. Pease, M. D., of Wisconsin. The report was adopted.

Dr. McMurray offered the following resolution which was adopted:

Resolved, By this Association that the Committee on Publications be instructed to append the Code of Ethics of the American Medical Association to each volume of its present and future Annual Transactions.

The amendments to the Constitution proposed by Dr. Stocker, of Pa., at the last Annual Session, were taken up and laid on the table.

Dr. Lindsley offered the following amendment to the Constitution, which was seconded by Dr. Gunn:

"In Art. II., omit the words 'Medical Colleges;' and also the word 'The Faculty of every regularly constituted Medical College, or chartered School of Medicine, shall have the privilege of sending two delegates'"

The amendment lies over until the next meeting of the Association, under a rule of the organization.

On motion of Dr. Palmer, the resolutions reported at the last Annual meeting of the Association by the Committee on Plans of Organization for State and County Medical Societies, were taken up and adopted.

The following resolutions were offered and adopted:

By Dr. Pitcher—

Resolved, That the members of this Association, as recipients of the cordial, generous, and elegant hospitalities extended to them by the profession and the citizens of Nashville, in placing on record an expression of thanks for the social amenities they have enjoyed during its tenth annual session, wish also to leave behind them the assurance, that the recollection of their short sojourn in Tennessee, will be cherished as dearly as the remembrance of the far off sound of water, by the exhausted and wayworn traveler.

By Dr. Means—

Resolved, That the earnest thanks of this body be presented to the authorities of the State and City, who have tendered this magnificent State Capitol for their sittings during the present session.

By Dr. Currey—

Resolved, That the thanks of the Association be tendered to the Reporters of the City Press, for the accuracy and promptness with which they have reported the proceedings of the Association, and to the Publishers, for the liberal supply of their morning papers during the Session of the Association.

By Dr. Wister—

Resolved, That the thanks of this meeting be presented to Dr. Wm. Brodie, for the efficiency with which he has discharged his duties as Secretary.

By Dr. Byford—

Resolved, That the State and County Societies throughout the Union be requested to recommend to their members to purchase the Transactions of the American Medical Association, and that their officers act as agents for the same.

On motion of Dr. Gunn, of Michigan, the Association recognized the presentation of a pamphlet by Henry Frazer Campbell, M. D., claiming "Priority in the Discovery and naming of the Excito-Secretory System of Nerves."

On motion of Dr. Byford, the Association then adjourned *sine die*.

ART. XXXIX.—*An Address delivered before the American Medical Association, at its Tenth Annual Session, 1857. By ZINA PITCHER, M.D., President.*

Assembled as we are here, under the auspices of the medical profession in Tennessee; meeting in presence of the citizens of this beautiful city, honored by representatives from that better part of our creation, who, like the Amarant of Milton, throw their shadows and shed their fragrance o'er the waters of the fount of life; coming as we have in considerable numbers from distant portions of the United States, abandoning for the time being our private engagements, and encountering on our way hither the hazards incident to velocity in locomotion, as if only to enjoy the social amenities and the pleasures of professional re-union, these two questions naturally arise in the minds of those who are merely witnesses of the spectacle presented by our assemblage. "For what purpose is this convocation of physicians? What is there in the nature of their particular pursuit, which prompts them thus to relinquish its rewards, to forego the endearments of home, when there is no visible manifestation on their part, of a design to promote those objects which centre in self-interest, to advance the purposes of sectarian ambition or political partizanship?

In the fulfillment of a duty incident to the position which I have had the honor to hold for the past year, a year full of pleasant recollections to myself, I shall, whilst designing in brevity to follow the example of my honored predecessors, attempt an explanation of the phenomenon we may be supposed to present to the mind of an intelligent, but uninitiated observer.

Before entering upon the task I have assigned to myself, I beg you to indulge me one moment, in repeating to the Association, my assurances of gratitude for the distinction I have received at its hands and for the personal manifestations of confidence and the acts of courtesy, I have received from many of the individual members, the recollections of which, will linger in my memory and lesson the consciousness of my weight of years, on the remainder of my journey, down the declivity of life.

The objects for which the Association was formed will ever enlist the warmest sympathies and command my active co-operation. I congratulate you on the happy circumstances by which this anniversary meeting is attended, on the evidences of vigor and the promises of longevity which this Association derives from its annual migrations. God grant that its existence may be prolonged by these annual renewals of its vitality, so long as there are evils for it to reform, or works of beneficence for it to accomplish.

To do what I have proposed satisfactorily to myself, would involve the necessity of showing the relation which medicine has held to the civil authority, to the ecclesiastical power and to the social condition of the people for all time antecedent to the date of this organization. This review would also lead us to consider the relation which free governments bear to letters, to science and the arts; a field too large for us to occupy on the present occasion. We shall endeavor without attempting all this, to present to your view the condition of the profession at the time this organization sprang out of the antecedent chaos, the cause or causes of that condition; whether inherent and incurable, or whether arising from extrinsic circumstances, which may be remedied, and whether the remedy is to be in public authority, or sought for in associated professional influence.

We remark first that a great and notable law marks and governs all the works of creation. It is typified in the individual mind—in our corporeal functions—in the movemens of the race—and in the revolutions of the heavenly hosts:—all are subject to this law of periodicity and this alteration of condition manifests itself even in the domain of disease. We have seasons of activity and repose in the natural as in the moral world; periods of illumination and obscurity—of activity and of rest; in the one case, producing day and night, winter and summer, and in the other those alternations of social condition which have been spoken of as the Athenian age, the age of darkness, literally a long and profound intellectual eclipse to which has succeeded the active era of mental excitement and of material progress in which we live, by which we are moved, the sun of which appears not yet to have reached its point of culmination.

In all the struggles which have marked the conflicts between truth and error, ignorance and knowledge, medicine has always taken a conspicuous part, having ever been a faithful auxiliary, when not a leading element in every effort made to elevate and improve the condition of mankind, at one time allied to sacerdotal authority, as an indweller of the temples, and at another, incorporated into the body politic or rather engrafted upon the tree of State.

In the earlier stages of civil advancement, in all those territories once composing the eastern and western empires, as is the case now in Europe, where certain forms of government exist, the sovereign authority prescribed the modes of worship, the forms of law and the requirements of medical practitioners. Unless the vigorous conservatism of those existing European governments is relaxed by the caprice of vain and foolish princes, at the suggestion of wicked men or misguided women, the right to exercise the functions of the physician, is only conferred on the most satisfactory proof of indefatigable culture. And in the earlier pages of our own national history, we find the footprints of our European ancestors in the records of those salutary laws made for similar purposes and transmitted to us by our political progenitors.

But in the process of time, when our form of government was changed, when the repository of sovereignty became inverted, when the power of the State passed from the few to the many, when the State became nothing and the citizens all in all, when this segregation of the sovereign power was rendered complete by the absolute freedom of the elective franchise in many of the States, then our art ceased to have a party in the commonwealth, as the law which became the exponent of this new opinion, the expression of the popular intelligence, effaced from the public record all legal traces of distinction between the physician and the hypocritical pretender.

When these ancient legal incentives to study were withdrawn, a new class of men unprepared by mental discipline, rushed into the professional arena, bearing down by their numerical force the few remaining barriers which society was disposed to defend, notwithstanding the abrogation of law.

The political revolution which separated the American colonies from the British crown, by loosening the connection between the church and the State, insensibly led the way to the more complete separation of medicine from governmental control and political dependence. These manifestations of popular absolutism, which swept away the prerogatives of the clerical and medical professions, threatening to involve the law in the same unchartered equality, were the remote causes of the professional abasement, we had then reached, a humiliating consciousness of which aroused its members, who in the hope of reinstating its departed dignity to form this Association.

Whatever effect this unrestricted distribution of political power, through all ranks of society, may have had upon the social body it is not our business to enquire, as ours is not a political institution, but of its immediate influence in reducing medicine to a state of degradation, there is no reason for doubting the fact, nor the propriety of this exposition, for with physicians, etiology is often a key to diagnosis, and without a true pathology, there is neither safety nor certainty in therapeutics.

In treating of medicine in its social and political relations, it is not my design, as I have no wish even if the power were inherent, to change in any particular our organization, or to advise an essential departure from our plans of operation. I have presented the subject in this light, more for the purpose of reviving the courage of members who may have begun to despair of success, because the objects we set out to accomplish, have not been at once achieved.

Time must be given for results to mature, as all social institutions are of slow growth. Their roots descend slowly into the social soil. Those who clothe and feed the members of them must become imbibed with a sense of their importance and a necessity for their advancement, as a means of promoting the public good, else their co-operation cannot be secure. Hence our duty of endeavoring to move the social body, and all its dependencies, like the horses of a Grecian Chariot all abreast, striving at the same time to shield ourselves against the propensity

inseparable from the absolutism of a pure democracy, to decapitate every object that raises its head above the surrounding social level.

We have stated with philosophical accuracy, but perhaps not with strict regard to literal historic truth, that this Association was formed to repair the evils resulting from the dissevered relation of medicine to the State authority. Whatever formula we use in expressing the idea, or by whatever rationale we explain our conception of the evils said to exist for which it was designed to furnish the remedy, the records show that its mission was to reform the medical schools of the United States, and to improve the preparatory education of students of medicine.

The development of organic bodies depends upon the absorption and assimilation of extraneous materials. If the same law regulates the growth of institutions, it becomes a matter of some interest to enquire whether the schools are an out-growth of the profession, or whether the profession is the product of the schools, for, in either case, there is a labor for us to perform, and the answer to this question determines the place of beginning.

Lest a doubt might arise as to the correctness of the opinion, we wish to impress upon the professional mind, that society itself and not we alone are amenable to censure for the abasement to which the profession of medicine had decended at the date of our associated existence, let us for a moment look into the records of the past, to see whether we cannot find an antecedent era, in which the world has been subjected to similar moral cataclysms, by which ancient institutions were broken up, their materials converted into dirt, to lay the foundations of newer and more horizontal strata, from which we may draw lessons of wisdom applicable to our own time and our own condition.

We believe that there is no period of ancient history into which that of our art is intimately interwoven, presenting more analogies to our own, and, at the same time, so distinctly marked by strong antithesis, as that which intervened between the death of the Savior and Mohammed, when for more than five hundred years, a nightly struggle was going on between that Divine Word, "who lighteth every man which cometh into the world,"

the spirit of the Indian religion and the majority of the Roman Empire, the latter aided by a fascinating philosophy, made beautiful by the aesthetics of Longinus, each striving for the possession of the human race.

Whilst our Empire thus labored to throw its Upas shadow over the infant church, a social disintegration of castes, owing to these struggles and the irruption of barbarian hosts from the north took place, and a consequent universal fusion of the races, languages, and customs, producing an excitation of thought, and a blending of peoples analogous to the social fusion and the blending of types of disease, which we see daily taking place in our own time and in our country. The minds of men thus cut loose from their ancient fastenings, sought new affinities, arranged themselves in accordance with those difficulties into new forms, many of whom wandered into unexplored paths, hoping without the aid of a Divine guide to ascertain their relation to the unseen.

Thus also did the members of our own profession wander into untried and forbidden paths, in pursuit of the ideal up to the time this Association was formed. A faithful picture of the last century of this historic period, presents the deepest contrasts of light and shadow, that can be portrayed in a single work of art. The darkest hue of vice being drawn in the same pannel with the purest tints of virtue. The church young and vigorous being soiled by its contact with a paganism inexpressibly wicked, against which it waged a war, unmitigated by acts of mercy.

These outbreaks of emancipated human thought at each of these epochs, have had their use: have produced their fruits—late in arriving at maturity, it is true—and especially so will it be with the germs that are scattered in the midst of the confusion of our own times. An abiding faith that good seed, in spite of the tares that may choke it, or the birds that may devour it by the wayside, will spring up and produce fruit in good season, has led me into this historical retrospect.

During the period to which we have alluded just sufficiently to show what forces disturbed and broke up ancient civilization, we find on closer examination, that the laws of the Empire relating to medicine, though unrepealed, were not enforced.

These laws made it the duty of the provincial governors to send the youth, subject to their jurisdiction, up to the city magistrates, where they were required to submit to the most rigid system of surveillance by the municipal authorities, their conduct as students, their deportment as citizens, being subjects of official scrutiny. The medical pupils under the training of the Archiatries or State physicians were fitted for the performance of their duties in either the wards of the cities, or in the towns or villages, whither they were sent by imperial authority, on the requisition of the inhabitants, who paid for their services a stipulated price.

Notwithstanding these requirements of law were left unpealed, the new opinions which had got possession of the popular mind, being more powerful than statutes, when enforced by the Perabolini, a body of religious medical enthusiasts and various other pretenders, who impelled by the spirit which animates a people having just been taught to exercise the privilege of judging in matters of faith, become presumptuous in matters of science, and by applying this newly acquired right of action to medicine, having numerical strength, they overrode the prerogatives of caste, and trampled under foot the wisdom of all preceeding ages.

Whilst these conflicts of opinion were being carried on in an age that produced an Athanasius, a Jerome, a Chrysostom, and an Augustine, and a system of Christian ethics which absorbed into itself all that was valuable in the philosophies of Greece and Egypt, medicine acquired celebrity from such names as Cacsarius, who became an Archiater—Palatinus, Oribasius, whose works remain as monuments of his genius and proofs of his culture; Aetius, Alexander of Tralles, and Paulus Eguineta, scarcely inferior in reputation to the father of medicine himself. The lustre of these names seems but the more expressively to mark the twilight of that night destined thence to brood over Europe, whilst the materials of the ancient civilization, broken into fragments by a rude and vigorous barbarism, were slowly wearing away the characteristics of the conquering hordes, and preparing the way for its reappearance in new forms, through the instrumentality of the Free Cities and the feudal institutions of Europe.

During this general eclipse of letters, its occultation continuing till the art of printing was invented, we have had furnished to us an opportunity of seeing how inadequate statutes alone are to development of institutions and how impotent they are even when aided by professional co-operation, to resist the obstacles interposed by an adverse public opinion.

If our design has been accomplished, we have shown that the work of medical regeneration is to be commenced by the profession, whose success is made dependent upon an intelligent concurrence of the popular judgment. But it must be remembered that in attempting to bring about essential changes in social life, in public policy, or in the constitutional relations of the different States, by whose happy form of union we are permitted to meet here to-day as fellow-citizens of a common-country, we must keep in mind the fact, that all organic nature is developed from embryonic existences—that all great changes in opinion have had their origin in germs planted long antecedent to the production of fruit, and that advances in science and improvements in the method of its application to art, have also had their seed time, their period of growth, and ever must have their day of fruition.

History is filled with exemplifications of the truth of this remark and of evidences of the perpetuity of this law. The first step on the road to the trans-Atlantic Telegraph was taken by Volta, when he constructed the Voltaic pile—the next was the formation of the Galvanic Battery. These inventions were followed by the discovery that soft iron became a magnet when subjected to the action of an electrical current and resumed its normal condition as soon as the current was withdrawn. Then it was proved that the magnetic action of a current of electricity is not lessened in intensity by passing through a long wire. Out of these antecedents, by the help of Grove's permanent battery the Magnetic Telegraph was developed and the art of magnetic printing evolved.

But for the researches of Vesalius, who had traced out the course of the lacteals, the splendid discovery of Harvey of the circulation of the blood might have been a long time postponed.

Notwithstanding the perennial influence of those causes to

which we have ascribed the tendency to professional abasement, we have met here to arrest and to counteract, there is in the condition of things by which we are surrounded much to inspire us with confidence and to stimulate us to exertion.

We have not now as did those who lived in the time of our historic analogue, to resist the pressure caused by the debris of an effete culture.

We have not to contend against the influence of those monstrous forms of superstition which grew out of the conjunction of Christianity, when defiled by a co-partnership with the civil power, and the decaying institutions of its Pagan predecessor, when a phase of credulity was developed which would prescribe the contents of a mummy case, in preference to the kreasote involved in the process of the manufacture of mummy, once an article of Egyptian commerce.

These political causes to which we have alluded as tending to diminish the distance between our pre-existing social extremes whereby the medical profession lost its claim to legislative protection, have already produced the signs of a growing national homogeneity, by fusing and re-casting into an American mould, the various elements of which the nation is composed.

Among these materials so readily amalgamated, which by their youth, energy and plasticity, give us our national manners, there are some which need to be brought under the hammer of the forge, as well as the heat of the furnace, before they can be wielded into the social mass. I allude to a class of men wearing ecclesiastical habiliments, not wise enough to comprehend that the professions are the growths of civilization, developed by the wants and necessities of society, each one having its part to act in the drama of life, nor possessing that degree of self-respect, which would prompt a man not even claiming to be divinely called, to avoid the contact of things proclaimed to be unclean.

When I speak of this class, I do not mean the great body of American clergy—men who, instead of practising a heterodox medicine, both practice and preach the precepts of their Divine Master as things which appertain to man's social and everlasting peace. But I mean a class, who as if bitten by some moral

Tarantula, become blinded by a phrenitic distemper, and like the great adversary of the Philistines, are ready to pull down the pillars of the temple regardless of the ruin impending, whether that ruin involve a simple social element or the integrity of the national fabric.

Having, then, in our favor the vigor and impressibility of a new people, the resources of a new and rapidly developed country, the intelligence of a self-governing population, the augmentations of that intelligence by the unrestricted importations of learned works and the immigration of cultivated strangers; and without the propulsion derived from a free and active press, we have a right to expect success. With such auxiliaries, by a persistent assiduity on our part we shall at some future day enjoy the happiness of seeing our labors crowned with the pageant of brilliant triumph.

The one thing already achieved in the adoption and enforcement of the code of medical ethics, is worthy of commemoration by the observance of an annual holyday. Till then we had suffered more from quackery within the profession than from irregularities without. Now that order of things is reversed.

From a survey even of the surface of society we learn how soon the knowledge derived from medical sources, strikes its roots into the popular soil. Take as an example the subject of organic chemistry, and we shall see how rapidly its principles are passing into the stock of general intelligence. The numbers are daily on the increase, in every community, of those persons who know the necessity of nitrogenous articles of diet when repairs are to be made in the fibrous and areolar tissue, and how important an agency the carbo-hydrogenous are supposed to exert, by increasing combustion in the removal of certain morbid conditions of the lungs. In this way the mutual relations of the lungs; in this way the mutual relations of the profession to the people are made apparent. The instruction communicated by the scientific physician is refunded to him in the increased capacity of the people to appreciate his worth.

We have spoken of the profession as the products of a general culture, to which in our country, they must of necessity bear a

fixed and definite relation, and of the reciprocal influences they and the society out of which they spring, exert upon each other. We have shown in a single example by what apparently simple quotations in scientific discovery, men are led to great practical results. As an incentive to industry and as a reason for confidence in slow but certain success, we will detain you one moment longer, in a hasty sketch of the materials for thought that arise out of the contemplation of the field of nature, such a scene being as suggestive of thought and as full of instruction, as the examples furnished by the achievements of art.

In adjusting our telescope, to study the features of some snow-clad mountain, the organ of vision perhaps takes in the form of an enterprising explorer, whose feet still sparkling with ice as he descends from its summit, will crush out the fragrance of the plants which spring up to greet him as he walks downwards into the valley of flowers. From the eminence attained by his enterprise, he could trace the course, and measure the elevation of the mountain chain, which give origin and direction to the rivers, effect the commerce, the languages and migrations of men, fix the character of the mammalia and the habits of its population.

Subsidiary to the interests excited by this scene as a landscape, but no subordinate in importance, lies the geological formation of the ranges which contain their mineral productions, gives character to their fountains and increase to the variety and beauty of vegetation, both on the slope of the mountains and in valleys below.

Although a scene like this may excite emotion in the bosom of a savage and awaken a sentiment of adoration for the majesty and power which ~~can~~ give such grandeur to nature and even pass from the mind of an ordinary observer without any other expenditure of thought, yet to master it as a subject of scientific study would require a preparatory knowledge of what is contained in the writings of Werner and Hutton and Miller on Geology, Cuvier and Buckland on Paleontology, of Geoffrey, St. Hilaire and Agassiz, on the races of men and the migration of animals, of M. Baloi on Ethnography, and of Linnæus and De Candolle and Torrey and Gray on Botany. And to condense the whole

into the congress of the "Cosmos" would require the genius and longevity of a Humboldt.

What is there then gentlemen, left for us to do, but to declare the perpetuity of this Association and renew our vows of fidelity to the requirements of its constitution?

In this proclamation and in these vows are involved the pledges, that in our professional acts we will honor the principles of moral law, which lie at the foundation of our code of Medical Ethics. That we will use our individual influence and so try to secure a higher mental culture to medical students and candidates for medical honors. When this is accomplished the medical schools will rise in character as a correlative effect, and the profession establish for itself a legitimate claim to public confidence and popular esteem. Our custom of meeting in each successive year, in a different State of the Union, prevents the decay of the body, by the introduction of new materials, and we illustrate in this way, the doctrine of zymosis, by the rapid assimilation of these new elements into the common mass. Another custom of the Association has done much to bind it to the individual States, that of shedding its honors upon the profession of the State in which the meetings are held, through which we hope to secure the sympathies of the people, and enlist them as allies in the warfare we are engaged in, against the hosts of ignorance.

A departure from the established usage of the Association in either of these particulars, would mark the date of its decline, both in vital force and mental vigor. Any restriction put upon freedom of motion, or attempt made to centralize its influence, would enstamp it with the seal of decay.

But if the avenues to material success are so direct and brilliant that the talent of the country is tempted to take the shorter road to wealth whereby we fail in our attempt to lay the foundation of a national medical literature, in holding up a high exemplar to the medical student, by teaching him the necessity of a thorough preparatory discipline before commencing professional studies, and urging him by the force of opinion to master the elements of his profession before assuming the responsibilities which attach to the discharge of its duties, we may yet in one way leave our

traces upon the national character and our foot-prints on the national history in the hallowing of one day in our annual calendar, on the recurrence of which we may have by the example of our patriotism, the stamp of nationality, in bringing to our shrine no sectional passions and so conducting our proceedings that brilliant memories shall adorn our annals, the names of our celebrities be embalmed as national benefactors and the anniversaries of this Association, in honor of their services, shall form by popular consent, one of the holidays of this glorious Republic.

Often in the crisis of sectional commotion the moral necessity of a common shrine, a national feast, a place, a time, or a memory sacred to fraternal sympathies and general observance, appeals the patriotic heart with regret, or warms it with desire! Were such a nucleus for popular enthusiasm, such a goal, for a nation's pilgrimage, such a day for reciprocal gratulation our own—a time when the oath of fealty could be renewed at the same altar, the voice of encouragement be echoed from every section of the confederacy, the memory of what has been, the appreciation of what is, and the hope of what may be, simultaneously felt,—what a bond of Union, a motive of forbearance, and pledge of nationality would be secured!

By the blessing of the Divine Founder of our holy religion, who, nineteen hundred years ago, went up to Jerusalem, with his disciples to celebrate a national feast, may the proceedings of this body be so overruled, that the recollections of this meeting at Nashville to-day, when softened by the "moonlight of memory" may become a hallowed event in the annals of our yearly migration.

ART. XL.—*Epidemic Dysentery*. By Dr. B. F. S. DAVIS, of Post Oak Springs, Roane county, Tenn.

This disease made its appearance in this place, for the first time in many years, in the summer of 1856, and as early as the 11th of June. At that time, in some portions of the country, typhoid fever was prevailing and a whole family that had it were

subsequently taken down with flux. These patients, and a large majority of the others, were complicated with typhoid symptoms. This tendency to depression kept me from bleeding several stout cases, where it seemed to be clearly indicated, which were relieved by a few nauseating doses of ipecac, combined with hyd. cum creta. In 1857 the typhoid symptoms were not so prominent, but were easily brought on by the use of castor oil, a medicine that has been the cause of more fatality in this disease than arises from its natural tendency.

Periodicity was observed in many cases during convalescence, which either did not exist before, or owing to the short time given to each patient, was overlooked. The first I observed of this symptom, I was called a week after dismissing the daughter, to see her step-mother, a relapsed case from eating cold biscuit and beans. After giving the mother some attention, the father directed my attention to my former patient. The mother and two others had entirely recovered, but she was almost a living skeleton. Having had an opportunity to examine one of her evacuations which looked much better than I expected, I directed her to have more nourishing diet, and gave her a quinine pill merely as a tonic to assist the stomach and bowels, she stated to me that she was always worse in the latter part of the night and her discharges were worse at that time, and better through the day. I left her 10 quinine pills, one to be taken every hour, and in two days she went with me in my buggy to see a neighbor. This led me to notice the old woman more closely, and though the family or myself could notice no periodicity, the history of her case after I had dismissed her, exhibited that tendency.

ventured upon ten quinine pills with an opium pill for the rectum, which relieved her. At a later period of the season I was called to see a lady with a mild attack of dysentery. The case did not require much treatment and as it was doing well I left for the East Tennessee Fair. While absent, her family medical adviser called to see her, and told her, that she *had not had the flux*; but a short time after, she was taken down and I learned that the cause was ascribed by her physician to a *change of life*, which was truly her condition. She remained sick for

about 30 days, when I was called in to see her. She had been taking the blue pill and it was followed by wine and an infusion of columbo. Upon questioning her, I learned that her bowels had moved every morning about three o'clock with considerable pain, followed by extreme exhaustion. Gave her 11 quinine pills, next morning she passed through the same routine, except a high fever about sunrise and copious perspiration following it. During the sweat I commenced the antiperiodic again and continued the pills for 10 hours. The next night found her in a warm gentle perspiration, and in a few days almost entirely well.

In treating epidemics where there is a large number of patients the practitioner has to become more of a routinist than he would be if he had more time to devote to each patient. Though I have given my treatment in some cases this was not the course usually pursued.

Every patient was ordered a ley poultice to his bowels and if necessary a blister under it, shielded by cabbage leaves or thickened milk and a rag; if bounding pulse, ipecac with, or without hydrarg cum creta; opium when necessary; *no oil* except in some convalescents with torpid bowels, who had gone several days without an evacuation, for whom I occasionally prescribed it with spirits turpentine; *no water*, but gave them freely of the mucilage *striped* from slippery elm bark, one, two or three table-spoonfuls at a time. A constant use of the camphor, morphine and sulph. magnesia mixture, unless contra-indicated, which was very seldom the case, even at the outset. For the first few days I gave hyd. cum creta and Dover's powders to many of my patients until the desired effect was produced, then the camphor mixture with an occasional opium pill.

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. XLI.—*The Physiological Anatomy and Physiology of Man.* By ROBERT BENTLEY TODD, M.D. F.R.S., and WILLIAM BOWMAN, F.R.S., late Prof's. of Physiology and general and morbid Anatomy in King's College, London. Philadelphia: Blanchard & Lea, 1867.

The publishers have laid us under obligations for the foregoing valuable volume. It is issued by them without the intervention of the name of an American editor. In this work the learned authors have followed the plan of that great master, Haller, in giving greater prominence to anatomy in its relations to physiology, hence the title of the book. It is numerouslly illustrated, and in looking over the list of illustrations we were struck with a new feature, that of affixing to each the name of that author by whom it was first designed. We like this for two reasons, it shows honesty on the part of the authors, and it presents to the student at a glance the names of all those master spirits who have labored in this field of science. Of the two hundred and ninety-eight illustrations, it appears that only 98 are original with the authors, while the remaining 200 are taken from the English and French and German and Austrian works. Not one do we find credited to an American source. We do not say this by way of disparagement, either to the book, or to our own authors.

From the cursory examination given of the volume, we are much pleased with it, and feel confident it will find its way as a text book for students and physicians.

Our friends, W. T. Berry & Co., of Nashville, have our thanks for this and other favors.

ART. XLII.—*Clinical Lectures on certain Diseases of the Urinary Organs ; and on Dropsies.* By ROBERT BENTLY TODD, M.D., F.R.S., physician to King's College Hospital, London. Philadelphia : Blanchard & Lea, 1857.

Another valuable re-print from the pen of Dr. Todd. The importance of these diseases—and the extent to which investigations have of late years been carried, upsetting old theories and establishing new facts, physiological and therapeutic, causes us to hail with delight any work calculated to throw additional light upon them. Such we find to be the character of Dr. Todd's work. In it fifty-five cases are detailed to illustrate the various diseases and exhibit the treatment adapted to each—cases taken from the author's *clinic* in the King's College Hospital. The narration of these cases is brief yet to the point, embracing everything that would tend to explain the nature of the disease. They may be regarded as models, worthy of imitation for their conciseness and interest.

The profession is indebted to Blanchard & Lea, of Philadelphia, for this re-print, which also goes forth resting on its own merits for favor with the profession, and not bearing the name of an American Editor. Our readers may congratulate themselves on the opportunity of becoming acquainted with the works of Dr. Todd.

W. T. Berry & Co., of Nashville, kindly placed the volume upon our table.

PART III.
MONTHLY MEDICAL RECORD.

OBSTETRICS.

1. *Vesico-Vaginal Fistula*.—*A Report read before the Medical Society of the State of Georgia, at their Annual Meeting, at Augusta, April 8th, 1857.* By P. M. KOLLOCK, M.D., Professor of Obstetrics and Diseases of Women and Children, in the Savannah Medical College.—In order to secure completeness and systematic arrangement, in the Report which I now present to the Society, on the subject which was assigned to me at its last annual meeting in Macon, it will be necessary for me to go over ground which has been before trodden by other Reporters, and to recapitulate historical facts and statements, which are familiar to many of my hearers, and which, to them may be wanting in that degree of novelty and freedom from triteness, which are requisite to secure a patient and willing attention.

The immense importance of the subject, however—the difficulties by which it has been hitherto surrounded, and the very meagre manner in which it has been treated of in text-books, will, I feel assured, be received as a sufficient excuse for this unavoidable repetition.

Whenever an abnormal communication is established by disease or accident, between the urinary and genital organs of a female, so that the renal secretion, after arriving in its vesical receptacle, instead of being expelled at will through its natural canal the urethra, passes directly and involuntarily, into the vagina or uterus—it is called a fistula, the character of which will vary, as regards its curability and the inconvenience and suffering which it induces, according to the point at which the unnatural route occurs. And in order to distinguish these several varieties of the affection, titles have been conferred upon them derived from their locality; hence we have the *urethro-vaginal*, *Vesico-vaginal*, and *Vesico-uterine* varieties, according as the communication is between the urethra and vagina, the bladder and vagina, and the bladder and uterus. In the first, the perforation occurs in the mucofibrous septum, which separates the

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canal of the urethra from that of the vagina; in the second, it occurs at the point where the "bas fond," or lower fundus of the bladder rests upon the front wall of the vagina; in the third, the rent occurs at the point of contact of the vesical fundus, with the anterior part of the cervix uteri.

The gravity of the affection is increased according to the distance of the fistulous opening from the external orifice of the urethra. There is no disease, concerning which we learn less from the writings of ancient authors than the one which we are now considering. There is no reason to doubt that it did sometimes occur in the most primitive stages of human existence, for one of the chief causes of it (difficult parturition) had its origin in the primæval cause—and even the brute creation are not wholly exempt from it.

Notwithstanding the sad and disgusting picture which is presented by the victims of this fearful malady, it attracted little or no attention from surgeons until the commencement of the present century, and the most recent surgical works alone contain any thing like an intelligible account of it.

We cannot restrain our astonishment at this circumstance, when we contemplate the misery and ruin which is wrought in the existence of that portion of the human family, which Shakespeare styles "the cunningest pattern of excellent nature"—which, when robed in charms dependant upon a healthy performance of all the animal functions, challenges the admiration of the most insensible, and warms into adoration and love the icy soul of the Stoic.

The causes which usually operate to the production of a condition so deplorable, are such as are connected with the performance of a function, than which, there is none more important, none more necessary to the existence and continuance of animal life: the function of procreation. Nature—all powerful as she is—sometimes fails in the performance of this, her grandest work; and Art, is either summoned to her assistance, or proves itself utterly incompetent.

Whenever, during a protracted or difficult parturition, the presenting part of the child (generally the cephalic extremity) is forced down into the pelvic excavation, and there becomes arrested and impacted from any cause, the soft parts of the mother receive a severe nip between the child's head and the osseous circle by which they are enclosed, as if they were placed between the jaws of a vice.

When the severe pressure is allowed to continue for many hours, occasioned by strong uterine contraction acting on the

child's pelvic extremity, and a continuance of the obstruction to the advance of the cephalic extremity, the most prominent point of the vaginal surface, which is generally in front, behind the symphysis pubis, and where the urethra passes out under the pelvic arch, has to bear the brunt of the greatest amount of the acting force; the circulation is arrested at that point; a slough ensues and a loss of a portion of the soft maternal tissue; which results in the production of a fistulous opening, through which urine flows into the vagina, either directly, or, if the slough occurs at a sufficient distance from the external orifice, the urine passes first into the uterine cavity, and then into the vagina.

Although this is the usual manner in which these fistulæ are produced, there are other causes equally competent, and which play an important part in their creation.

Among these are clumsy manipulations with instruments, in the hands of unskillful operators, for the purpose of effecting delivery; the introduction of the blades of the forceps into the maternal organs with undue force—slipping of the same instrument during traction—slipping of the perforating scissors, or unguarded crotchet—sharp spiculæ or fragment of the foetal cranial bones, carelessly extracted, may lacerate and tear the soft parts of the mother, so as to terminate in the formation of urinary fistulæ. The long continuance of a foul pessary in the vagina, has been known to produce ulceration and perforation of the vesico-vaginal septum; as well as ulcerations of a specific character, both syphilitic and cancerous. Colombat states, that an example is cited by Fabricius Hildanus where the fistula was caused by the long retention of a calculus in the bladder. By whichever of the causes which have been detailed, the malady under consideration is originated, it is soon manifested, by a group of symptoms sufficiently characteristic to render the diagnosis both easy and certain.

When it has followed a tedious labor, accompanied with long impaction of the child's head in the pelvic excavation, a retention of urine is the first link in the chain of morbid phenomena, necessitating catheterism for the relief of the bladder; and this circumstance should arouse the suspicions of the attendant accoucheur, and put him on the alert. The retention may continue for several days—from seven to twelve—and then be converted into complete incontinence, the sloughs of greater or less extent having fallen, and a continued, involuntary stillicidium will be established.

Such a train of symptoms might possibly be caused by paralysis of the sphincter vesicæ; but the vaginal examination with the

finger will generally detect the abdominal rent, and a probe or catheter passed into the urethra will come in contact with the end of the finger. The introduction of the speculum exhibits most satisfactorily, in the majority of cases, to the eyesight, the lesion which the soft tissues have sustained, and confirms the diagnosis.

The poor woman is now reduced to a condition of the most piteous description, compared with which, most of the other physical evils of life sink into utter insignificance. The urine passing into the vagina as soon as it is secreted, inflames and excoriates its mucous lining, covering it with calcareous depositions, and causing great suffering. It trickles constantly down her thighs, irritates the integument with its acrid qualities, keeps her clothing constantly soaked, and exhales without cessation its peculiar odour, insupportable to herself and all around her. In cases where the sloughing has been extensive, and the loss of substance of the tissues great, and where neither palliative nor curable means have availed for the relief of the sufferer, she has been compelled to sit constantly on a chair, or stool, with a hole in the seat, through which the urine descends in a vessel beneath.

As has been stated, the gravity of the case is increased, in proportion to the distance of the perforation from the external orifice of the urethra. When it occurs in the urethra rather more power is retained over the discharge, which may not occur involuntarily; but when the base of the bladder is the seat of the fistula, all command over the discharge is lost, and it flows away constantly; unless the orifice is small, and capable of being closed by the gravitation of the uterus upon it, while the patient is in a sitting or standing position; even then, the urine is liable to be expelled by the expiratory efforts of coughing, sneezing, laughing, &c., the contraction of the diaphragm then forcing down the abdominal viscera upon the pelvic.

As fistulae vary in position, so do they in shape or figure, size and number. They may be longitudinal or traverse, round or oval, or angular; there may be one or more. I have never seen more than one in any one case. Dr. N. Bozeman, of Montgomery, Ala., records cases where there was a plurality.

According to my experience, the transverse are more common than the longitudinal. Where the sloughing has been great, and extensive losses of substance sustained, the vagina after cicatrization is contracted, the walls rigid and cartilaginous, and its canal obstructed by adhesions and bridges. The size of the opening may vary from that into which the tip of the index finger may be inserted, to one which is capable of receiving several fingers.

Dr. Boscman, in a letter to me, in reference to cases of this description, says: "In some of them nearly the whole of the septum had sloughed out, thus allowing the whole of the superior fundus of the bladder to protrude through, and appear at the vulva, in the form of a large fleshy tumor. In one case, both ureters were to be seen upon the surface of the tumor, thus allowing the urine to dribble away without even reaching the cavity of the bladder or vagina. Nor was this all; in two instances a portion of the beginning of the urethra had also been carried away in the sloughing process, and the anterior border of the fistula was found finally adherent to the pubic arch."

The *Prognosis*, in cases of this affection, has been hitherto unfavorable, even in such as might appear most within the reach of curativ means, regarding their position, size, &c., so that in the majority of instances, little more than palliative measures have been thought of; and, as was once recommended to me by a distinguished surgeon, whom I consulted in a case of this kind, "a masterly inactivity" has been deemed most advisable. The ingenuity of surgeons has been taxed to the utmost in devising means for alleviating the sufferings of those who labored under this dreadful calamity. Various means were resorted to for protecting the parts which were exposed to the irritating action of the urine, and for rendering the woman as comfortable as circumstances would permit. Emollient baths and unguents were prescribed for the promotion of cleanliness and allaying inflammation; and urinals of different shapes and materials were contrived for the purpose of receiving the urine as it was secreted. Tamponnement, or plugging the vagina, was resorted to as a palliative and curative measure combined, the catheter being retained in the bladder for the purpose of conducting off the urine from the fistulous opening. Dessault was among the advocates for this treatment; and some cures are recorded as having been effected after a very long and tedious perseverance in the course. Such fortunate results, however only occurred in cases where the fistula was situated at some point in the course of the urethra; where it was situated above, tamponnement was of no service.

Whether urinary fistulae are of more frequent occurrence now than formerly, or whether they were overlooked, by reason of the imperfection of the means of investigating female complaints, it is certain that modern surgeons have not rested satisfied with merely palliative measures; and those designed for effecting a radical cure have been essayed with more or less success.

The treatment for the radical cure of the disease may be

divided into that by *Cauterization*, and that by *Suturization*. The former may be sub-divided into cauterization by chemical caustics, and that by the actual cautery, or heated iron, or the galvanic spark.

The method by suturization, is susceptible of a sub-division into that which includes autoplasty, or the transplantation of a flap from a neighboring part, and securing it by sutures in the fistulous opening, (the edges of which have been previously freshened with the knife,) and into that, where the edges of the fistula, after having been pared with the knife, or drawn together and maintained in contact by suture.

Another method of cure is mentioned as having resulted favorably—viz: laying open the fistula into the urethra, and healing it as in cases of rectal fistula.

Cauterization, as a curative measure, has had its advocates among modern surgeons, the most distinguished of whom are Dupuytren and Liston. When chemical caustics are employed the Nitrate of Silver is preferable. This is only adapted to small fistulæ; it is used for the purpose of promoting granulations on the edges of the fistulous opening, and gradually closing it. Pancoast states that he has, "in this manner, succeeded in occluding a fistula of the size of a large goose quill." For larger fistulæ the actual cautery must be used; its effect is to produce contraction, as is usual with the cicatrices from burns.

When the cauterizing iron is used, it is advised that it be applied at a white heat, for an instant, around the edge of the opening for some distance to the vaginal surface; when the orifice is large, at long intervals; when small, once in three or four days. A late writer advises that the interval should not be less than two or three months, in order to allow time for the contraction of the cicatrix.

Within a short time Galvanism has been employed for the purpose of cauterization in this, as well as other surgical cases, by means of an ingenious portable apparatus.

My note-book contains the following account of the first case of Vesico-vaginal Fistula which it has been my fortune to encounter:—

CASE. August 23rd, 1856, I was called upon to examine a negro girl, the property of Mr. Wm. Gibbons, a large rice planter on the Savannah river. I received the following account of her case:—That she had been delivered a short time previous, after a very severe and protracted labor, of a large dead child. A short time after this, her urine began to flow from her involuntarily, there was a constant stillicidium, which caused much troublesome excoriation of the parts externally.

This history of the case led me to suspect, immediately, urinary fistula, caused either by rupture of vesico-vaginal septum during labor, or by a succeeding slough. As the incontinence did not occur instantly, the latter conjecture seemed more probable. In confirmation of my suspicions, the finger introduced into the vagina, detected a rent in the septum, which seemed to extend through the os tincæ and cervix uteri. A probe introduced into the urethra passed readily into the vagina, and came in contact with the finger in the vagina. The speculum revealed to the eyesight what the touch had foretold.

The treatment of the case was commenced by placing the woman in bed, and introducing a silver female catheter. The difficulty of retaining this instrument *in situ*, and the insufficiency of its length, allowing the urine to trickle over and bathe the vulva, induced me to substitute a gum-elastic male catheter of the usual length, passed through a small cork as a shoulder, to prevent it slipping too far inwards; a belt, made of saddle-girth webbing, was buckled round the abdomen; a piece of sole-leather, of sufficient length and breadth, was attached to the belt in front, passing down in front of the vulva, and the end of the catheter external to the cork, was passed through a small hole in the leather. A bowl was placed at the end of the catheter, which was allowed to remain open, to receive the urine as it flowed out from the bladder. This rude apparatus was found to answer pretty well the purpose for which it was designed. As, however, the gum-elastic catheter was soon rendered unfit for use by the action of the urine, and the substitution of a new one every day or two involved a good deal of expense, I obtained a flexible metallic catheter, which I cut of the proper length, and substituted it for the gum-elastic. The patient soon was enabled to wear this instrument, without much inconvenience, it being removed every other day for the purpose of cleaning it. The flow of urine through the fistula having been thus very effectually cut off, the orifice began to contract, and its progress was quite satisfactory until the contraction reduced it to one or two lines in diameter. It then assumed a most tedious and provoking indolence. Nitrate of silver was frequently and repeatedly applied without any visible service. On the 10th of December, (more than three months from the commencement of the treatment,) caustic potash was applied—a part of the vagina, near the fistula, became accidentally touched—a slough $\frac{1}{2}$ inch in diameter ensued. This ulcer was healed by the application of a solution of sulph. cupri. The effect of the vegetable caustic on the fistulous opening was very slight. After this, the actual

cautery was substituted for the chemical. In the course of some weeks, the fistula was reduced to a point, and finally closed—no urine appearing to pass through.

The whole treatment of this case occupied the greater portion of a year, during which time, the woman was kept constantly in bed, and the catheter retained permanently in the bladder. The tediousness and uncertainty of the treatment by cauterization, are insurmountable objections to it, and it will certainly never be employed by those who are acquainted with the more satisfactory and reliable process which will be detailed in this report.

The merit of having introduced the method of treating this description of case by suturization, has been attributed to Roerhuyzen. Dieffenbach, Robort, Velpeau, Leroy d'Etoilles, Lallemand, have figured most extensively in this department, and have claimed for themselves a great share of success. Their different methods are very fully detailed in the works on Operative Surgery. The principle common to each method is to freshen the edges of the fistula either by the knife, or cautery, before the sutures are introduced. The idea of applying Plastic Surgery to the cure of the disease originated with Jobert de Lamballe. Leory and Velpeau have adopted the same plan, with some variations in the manner of executing it. A variety of suturization has been invented by Lallemand, of Montpellier, which consists in drawing the edges of the opening together by means of a species of hooked forceps, and retaining them in contact by means of the same instrument. Finally, in very bad cases, where these different plans have failed, or cannot be executed, Vidal has recommended that the mucous membrane of the orifice of the vagina should be dissected off and the opening be closed by sutures, making a pouch or cloaca of the vagina, for retaining the urine, and with a small orifice for its passage outwards.

The several methods which have been alluded to—the result of the ingenuity and perseverance of European surgeons—are so difficult of execution, and so uncertain in their results, even in the hands of accomplished authors, that they hold out small inducement for their imitation, and we turn with disappointment and dissatisfaction from their contemplation. Their statistical records contain so large an amount of incurable subjects, that, if we embrace the popular creed in the infallibility of European authority—of hopelessness of success elsewhere, when failure attends on the efforts of those eminent surgeons, whose names have been mentioned, it would seem as if the condition of women, in a world where her portion of trial has been dealt out with no

niggard hand, wanted but this last drop to fill to overflowing, the bitter chalice, which it is her lot frequently to quaff, and that death is the only friend, under such circumstances, to whom she can appeal for relief.

Turning, however, from this gloomy picture, which the records of European Surgery present, in regard to the treatment of this class of affections, and casting our eyes Westward, we see, in that direction, a brighter prospect opening.

(TO BE CONTINUED.)

PART IV.

EDITORIAL AND MISCELLANEOUS.

AMERICAN MEDICAL ASSOCIATION.

This Annual Convention of the Physicians of the United States was to us one of peculiar interest. Being held at the place of our nativity, it was with joy we again grasped the hand of our teachers and fellow pupils, and with them welcomed the distinguished visitors from every section of the Union. We found that every preparation had been made for the entertainment of the Association, and old and young, and grave and gay were anticipating a feast of reason as well as a flow of soul.

As early as the Saturday previous the delegates, principally from the most remote points, began to arrive. And we were informed that all who arrived on that day, were so actuated from a desire to avoid travelling on the Sabbath. Many had so arranged their day of departure as to reach Nashville at that time solely on that account—among whom we may mention, and we do it with pleasure and to the credit of the profession, the names of Prof. Robley Dunglison, of Philadelphia, Prof. A. B. Palmer of Detroit, Michigan, Dr. W. P. Reese, of Selma, Ala., the entire delegation from East Tennessee, consisting of Drs. Rogers, Ramsey, Boyd, Lenoir Long, and ourself, Prof. H. F. Campbell of Augusta, Ga., Prof. A. H. Means, of Augusta, besides others whose names we do not now remember, all of whom gave this testimonial on the great occasion of the sacredness of the Sabbath.

Our readers have doubtless read the minutes of the Association, published on another page. While it was a subject of regret that

so many had failed to report on the topics assigned them, yet the whole time of the Association was busily occupied in reading reports and discussing questions relating to medicine.

In our opinion when a failure is made by any one to prepare the paper assigned him, unless a very satisfactory excuse is rendered, he should not be reappointed, but another assigned the subject. This would make the Committees more prompt. One of the greatest honors that can be bestowed upon a member is an appointment to prepare a Report or Essay, and either he does not appreciate it, or treats it with wilful silence, when he allows the occasion to pass without even the tender of an apology for his delinquency.

Prof. ROBLEY DUNGLISON.—As soon as it was known that this distinguished professor and Physician was present, all were eager to see him. To our mind he bore just the impress in the lineaments of his face, and that carriage of his person that one would have expected to have seen in such a teacher and such an author. Affable to all, a continual smile lightening up his countenance, with dignity in his gait and gentleness in his expression, he won the respect and esteem of all. Great men often become small on an acquaintance. Not so with Robley Dunglison. The distant view only served to create the desire for an acquaintance, and this did not fail to deepen the impression of his genius. As characteristic of the man was an incident which occurred on the introduction of one of the Nashville delegates to him. After the introduction, the delegate remarked, "Dr. D. you are not a stranger in our midst. We know you through your books, I have lately provided myself with another of your books, "The New Remedies." To which Dr. D. replied, "I felt some hesitancy in putting forth that book. Men give too much medicine any how, and I felt as if I was pandering to that taste. The older I get, the less medicine am I disposed to give."

It will be seen that the Association voted that the names of Dr. Felix Robertson, Dr. John Shelby, and Dr. James Overton, three fathers in the profession; as *permanent members*. Drs. Robertson and Shelby were present at one time during the Session of the Association. Dr. Overton was not able to attend.

Dr. FELIX ROBERTSON was born where Nashville now stands, in 1781. He graduated in medicine in 1805, when he presented that memorable thesis which was published in this country and also in Europe, on the Epidemic Chorea or *St. Vitus' dance* which was prevailing throughout the new settlements at that time. They were attendant upon the extensive religious revivals then in progress, and the affection receive the name of the *Jerks*. The venerable Doctor speaks with much animation of the incidents of that day. We regretted to learn that the volume, containing his thesis was borrowed several years ago and has never been returned. Dr. R., has passed through many seasons in Nashville. He is yet engaged in the practice, although at the advanced age of 76, having been engaged in his profession nearly a half century. He visited the association on Wednesday, and the announcement being made that he was present, the entire assembly rose to its feet, and greeted him as he ascended the platform with a hearty welcome.

Dr. JOHN SHELBY accompanied Gen. Jackson as Surgeon in many of his Indian campaigns, and though in after years they were opposed to each other politically, and that too with some bitterness, yet we are cognizant of the fact that some time before Gen. Jackson's death, Dr. Shelby called upon him at the Hermitage, and being met by the General at the door, the Doctor said, "Gen. Jackson we are both getting old and must soon die, I come to extend to you my right hand, and to bury the past." The General grasped his hand and replied, "Dr. Shelby you are welcome; let by-gones be by-gones"—and the two spent a pleasant day together. A few more months and General Jackson was numbered among the dead. Dr. Shelby still lives, in the enjoyment of good health, and the possessor of a fine estate in Edgefield. He has not practiced medicine for many years. He was appointed Postmaster in the City of Nashville, by President Taylor.

Dr. JAMES OVERTON—In company with Prof. Palmer, of Detroit, Dr. Porter, of Bowling Green, Ky., and Dr. Jones of

Nashville, we made a visit to the venerable Dr. Overton. Although suffering under affliction, we found him cheerful, and his mind as active as in his younger days. He is now about 72 years of age. He graduated in medicine in 1809 at the University of Pennsylvania, when Rush and Wistar, and Woodhouse and Physick filled the chairs. He returned to Lexington, his native place, and entered upon the practice of his profession. In 1814 he was elected to the Professorship of Institutes and Practice of Medicine in Transylvania University, and delivered the first Introductory Lecture ever given in that Institution. His associates were Richardson and Dudley. He remained in connection with the Institution for two years, when he resigned and removed to Nashville in 1817, where he continued in the active practice till 1840, when he retired to his present residence, a beautiful and commanding situation in the vicinity of the city. In 1845 he was solicited to become a candidate for the Senate of our State Legislature. The subject which he mainly pressed upon his fellow citizens, was the importance of constructing a railroad to Chattanooga, to connect with the Georgia road which was then approaching that point. It was emphatically his hobby, and he was called on account of it *Old Chattanooga*. He was, however, himself decidedly as opposed to a preliminary private survey, on the ground that undue advantage was taken of the public at ture granted a charter to the Nashville and Chattanooga Railroad company of a very liberal character. The Board was organized, and he as the originator of the project, was elected the first President of the Road. Having, however, expressed himself decidedly as opposed to a preliminary private survey, on the ground that undue advantage was taken of the public at large; at the next election he was defeated. This preliminary survey was for the purpose of showing the practicability of the present route through the mountains, whereas Dr. Overton was of the opinion that the location of that portion of the route should be a matter of time, and that explorers should be sent throughout the entire mountainous region, taking altitudes, and examining for the best and most easily graded route. It will also be as well to note here that Dr. Troost, as Geologist of the

State, favored a different route to that at present occupied, both on account of its easier grades, and greater supply of coal banks.

Since then Doctor O. has been leading a farmer's life. He still cherishes a fondness for medical studies. Lying on the table near him was a volume of the *Dictionaeri des Sciences Medicales* published in 1820, and a glance at the page turned down showed that he was reading upon the subject *Sciatica*, as he was under the belief that he was laboring under that disease. Prof. Dunglison had visited him on the previous day and had recommended the following prescription :

Dip the hand in wheaten flour and rub the thigh for fifteen or twenty minutes—morning and evening.

AN ANIMATED DISCUSSION

was elicited when Dr. Yandell introduced his resolutions. The passage of them would have rubbed hard upon some three or four schools, whose representatives were present. They would certainly have had the effect to cut off all schools which held two courses of lectures during the year, with the privileges of graduation at the close of each, as well as those which held only summer courses. In this category stands the Albany Medical College, of which Prof. Alden March is the distinguished Prof. of Surgery and who was present in the Association—the Medical College of Ohio, among whose corps of Professors are to be found Drs. Lawson and Blackman ; Atlanta Medical College, which had advocates in the Association in the persons of Drs. Boring and Means—the Oglethorpe Medical College—the University of Vermont, and the Philadelphia College of Medicine.

No sooner had Dr. Yandell introduced his resolutions, and urged their adoption in a deliberate yet forcible manner, than a half dozen members sprang to their feet, with the cries of Mr.

ERRATUM.

On foregoing page, at the end of the 21st line, after the words, "*He was, however,*" read, "*defeated. But the next Session of the Legisla-*"—then erase the two lines which follow, and connect with, "*ture granted a Charter, &c.,*" the beginning of the 24th line.

President. Dr. Boring, of Atlanta, retained the floor, and in a few words replied to Doctor Y. and proposed a resolution in lieu of those offered by him. These he advocated in a lengthy speech, showing how the resolutions of Dr. Yandell would operate, and giving a defence of the course pursued by the Atlanta College. Dr. Buchanan followed in quite an excited strain, deploring the firebrand which had been thrown into the Association. He thought he saw in it an attempt to throttle a sister school. Dr. D. M. Reese, of New York, next claimed the floor. Aware of the discussion which would spring up on the introduction of these resolutions, we had ourself prepared a series of resolutions—which at this point of the debate we asked liberty to introduce as a substitute for the whole. After reading them, we yielded the floor to Dr. Reese, who in a very able manner proceeded to show, that whilst reform was greatly needed in our medical schools, yet it should begin with them and the exciting subject be kept out of the Association. Dr. James B. Wood, also of New York, responded urging the importance of the subject. The speech made by him on this subject was one of the best during the Sessions of the Association. He contended for reform in the *mode* of teaching, and for greater strictness in enforcing the requisites of graduation. He was accustomed annually to walk the wards of Bellevue Hospital with five hundred pupils, collected from all the schools of the city of New York, and had a most excellent opportunity of ascertaining the qualifications of the candidates for graduation. On one occasion standing by the bed-side of a patient, he requested one of the students to write for him a prescription containing a diaphoretic. He hurriedly wrote off "Take a bundle of herbs." Of another he asked, what is an Expectorant? the reply was, A medicine that operated before you expected it. Another was asked to give the dose of hydrocyanic (prussic) acid, and the answer was, *half an ounce.*

What Doctor W. observes at Bellevue is common all over the country. It has called forth an earnest appeal from the people to the schools to raise the grade of scholarships.

The discussion had continued for several hours, by Dr. Hooker

of Yale College, who told of several cases that had come to his knowledge of young men who having found their chances feeble for graduation in the college with which he was connected, had gone elsewhere near the close of the course—one to New York and another to Philadelphia, and graduated; by Dr. Means, of Atlanta Medical College who defended the summer course of that Institution, showing its practicability in a very lengthy speech, and by others, when Dr. Hooker seconded our resolutions, and called for the previous question upon them. This cut off all debate, and the question being taken the resolutions offered by ourself in lieu of the whole, were adopted by a large majority. Thus was the battle ground of this great question, which every year agitates the Association, deferred to the meeting at Washington in 1858—neutral ground, and the main question, which will there be decided will be not so much whether this or that school shall be entitled to representation, but shall the *laity* of the profession or shall the *representatives* from the medical schools control the Association?

THE ISSUE.

Here is the main struggle during the meetings of the Association. Shall the schools or shall the profession at large have the supremacy?

So far the schools have wielded the power. Of all the Presidents, there is not one, so far as our knowledge extends, who was not at the time a professor in a medical school. A majority of the Vice-Presidents were also so connected, so are a large number of the chairmen of the most important committees. Is all the talent of the profession to be found alone among this class, or is it not an evidence of a growing disposition to make the schools the head and front of the profession in the Union? The object of this organization was that it should be neutral ground upon which the entire profession could rally in a common cause. Consequently the wisdom of the founders admitted delegates from the schools as well as from the societies, though we must confess with a preponderance in favor of the schools. For whilst a society can only send one delegate for every ten of its members, the

schools composed at most of only seven members, can send two. The result is obvious. It is to the *interest* of the colleges annually to see that they are fully represented, consequently the schools, and their adherents have so far succeeded in managing the affairs of the Association. To this we object on account of the petty bickerings and jealousies which they are continually introducing. We confidently believe and sincerely hope that the Report of the special committee on Medical Education will next year propose such a basis of organization, *such a system of Medical Instruction*, that will harmonize the elements and conduce to the good of the profession.

MEDICAL EDITORS.

Among the notables whom we met at the Association, were the Editors of the American Medical Press. We regret however in view of the proposed convention of medical editors, that so few were present. We were pleased to meet and form pleasant acquaintance with Henry F. Campbell, of the *Southern Journal Augusta*; Joseph P Logan, of the *Atlanta Journal*; D. Meredith Reese, of the *American Medical Gazette*, New York; Zina Pitcher, A. B. Palmer, William Brodie, of the *Peninsular Journal*, Detroit; C. C. Beard, of the *Medical News and Hospital Gazette*, New Orleans; L. G. Robinson, *Medical Independent*, Detroit; D. S. McGugin, *Iowa Medical Journal*, Keokuk; W. K. Bowling, P. F. Eve, of the *Nashville Journal*. Only twelve out of the whole number, too few to take any step towards the convention proposed several months ago. From many we had expressions of an earnest desire for the adoption of some general rules, or principles of action for the management of our Journals. Having failed in this convention, we now propose in the next number to submit to the consideration of our *confreres* certain recommendations, and ask a free expression of opinion with reference to them and additions and amendments to them. We propose that the Medical Press shall in union discuss these questions in each number till October next—and in that issue to publish such as may have been adopted and be regulated by them. Will the editorial corps agree to this,

and if so will each one in their July number propose such regulations as they may deem essential in the premises. We recommend the suggestions made by the *Boston Medical Journal* and the *Charleston Medical Journal* as a general outline. We will be pleased to hear from each Journal in July on this subject. It is only necessary, gentlemen, to have concert of action, and Medical Journalism of the United States will not be attended with such losses to Publishers and Editors as it is at present. It is no more proper that medical journals should be furnished to the profession free of expense than that medical books should. In the July number we will advance such propositions for the management of our Journals as we deem important, and hope others will do so likewise.

TENNESSEE HOSPITAL FOR THE INSANE.

Accompanied by Dr. Palmer, we made a visit to this Institution, and was kindly shown through its wards by the efficient superintendent and physician, Dr. W. A. Cheatham. At present there are 134 patients under treatment, only one of whom we found in any respect under constraint. In fact there is no constraint of person employed, the only treatment of this character consisting in a temporary confinement in a well ventilated room of good size and so secure as to prevent mischief by the patient.

All the rooms possessed an appearance of neatness and comfort, the halls and rooms being ventilated through the agency of a large fan-wheel in the basement of the centre wing.

The grounds are in fine order and the conservatory and kitchen gardens well arranged and cultivated. In these the patients, as they feel disposed, are allowed to work, yet their labor cannot be relied upon, as they work without any system or regularity. The object of the Superintendent is to make the Institution self-sustaining, as far as the products of the farm are concerned.

While at Nashville we procured an engraved plate of the building, and will in our next number present it to our subscribers with a history of the Institution.

THE CITIZEN'S BALL.

The sessions of the Association were concluded with a most

splendid entertainment given by the citizens of Nashville. But this only surpassed in *size* those which had been given at private residences during the preceeding evenings. We prefer inserting the graphic descriptions of these entertainments written by Dr. Gibbes, of Columbia S.C., as published in his *Banner*, which by the way is a most capital paper.

Of the entertainments of Tuesday evening he wrote :

We mentioned that three prominent citizens of Nashville, two of them medical magnates, had thrown open their hospitable residences for the evening entertainment of the Medical Association. Such an array of beauty congregated there, we have never seen before in any community. We hinted to one of the lovely fairies that our worthy host must have searched the various counties of the State to find such a galaxy of stars ; but she insisted that with an exception or two the city was only represented. However dangerous it may be to our position at home, we are forced, by the pressure around us, to confess that even our own Columbia must yield the palm of beauty to the city of Nashville. Her fair daughters turned out in bands of flowers, encircling the bachelors and widowers from abroad in their magic wreaths, and strewing around them the fragrant perfume of their charms. Even the benedicts who were present were induced to compliment their better halves at home by mingling with and enjoying the social converse of the brilliant and sparkling belles so beautifully spreading their influence around them. We may be allowed to say that the estimable wives of Dr. T. R. Jennings, Dr. P. F. Eve and Mr. R. C. Foster were "at home," on Tuesday evening, and did the honors of their mansions with charming satisfaction to their welcome guests.

The entertainment on Wednesday evening given by Dr. Shelby is thus described :

Dr. S. was a surgeon in Gen. Jackson's Seminole service, and there exhibited the patriotism which belonged to his family in the Revolution. He has now retired to a beautiful residence on his paternal acres, where he delights in the vocation of a farmer, and indulges his passion for raising the finest stock in the country. As with the others, his rooms were filled with garlands of beauty, richly arrayed in the expanding glories of the highest fashion. Music and the dance enlivened the assembly to a late hour, and the festivities of the evening were closed at the rich and varied feast of good things which characterize these hospitable citizens, who know how to enjoy luxury by dispensing its fruits to others.

And lastly of the *citizens entertainment* of Thursday evening in the spacious capitol he wrote :

The grave and dignified assembly of physicians and surgeons from

every quarter of the Union, will ever remember Nashville and her hospitable citizens—but of the ladies most especially will there ever be green spots of memory. Such a demonstration as was here made by the fair daughters of Tennessee will probably never be witnessed again by the medicos, unless they return to Nashville, for nowhere else can such an array of effective flying artillery be raised of beautiful girls and graceful and accomplished women. We thought Memphis took the lead, but we here discovered our mistake. They turned out in full force, and their first victory was that which gave them possession of the Capitol. In her halls of legislation they were supreme, and the power behind the throne was the majesty of the women in the felicity of conscious power dispensing their own laws, and in their own way.

At an early hour the halls were filled to overflowing with the representatives of the gentle sex and their attendants. The floor which a few hours before was occupied with the learned authority and earnest eloquence, solemnly enforcing the necessity of stricter rules for the education of the physician, and the elevation of the high and noble interests of the divine profession, was now the scene of fairy enchantment, thronged with those lovely specimens of creation that make men proud of their humanity. The number estimated as present was from fifteen hundred to two thousand ladies.

The magnificence of rich and varied dresses was only equalled by the taste displayed in their arrangement; and their special adaptation to form, complexion and style was a subject of general admiration. The poet says,

“Beauty when unadorned is adorned the most.”

But he did not live in days of *moire antique* and *brocade flounces*, of *berages* and *granatines*, of *mousseline organdie*, of rich embroideries and laces, of expanded skirts and crinolines—else would he have acknowledged the power of progress, and appreciated the spirit of fashion that fosters the inventive genius of beauty’s ministering angels. On such occasions as this, music hath other charms than to soothe—it stirs the spirit and adds life and increased motion to the light step, and brings into action the grace and elegance of education. The dances were in accordance with the most approved ordinances of fashion, and were enjoyed with evident satisfaction by those who were fortunate enough to get position. The Representative Hall and the Senate Chamber were not sufficient to accommodate all, and the galleries, committee rooms and lobbies were crowded with anxious lookers on, who could not partake of the gay and lively dance.

When the hour arrived for the entree to the supper room, in the extensive basement of the huge structure, the torrents which poured down into the regions below, covered with brilliant gems, reminded you of the streams from the mountain sides, sparkling in the sun’s rays, falling into dark and rocky caverns—soon, however, a flood of light was found among the wide arches, above the rich variety of viands upon the festive board. Whilst the avalanche was coursing downwards, the line of the poet was negatived, which says:

“Facilis descensus Averni”—

The crowds jostling each other progressed but slowly, and long was it ere the subterranean chambers were carried by the besiegers. Once in the citadel, however, sad havoc was committed on the destructibles; but it did not require long for 5,000 persons to despatch the ample provision for their entertainment. The return to the halls was soon effected, and we learn that the gray of the morning found lingering dancers still keeping time to the music.

The display was a grand one, highly honorable to the social character and public spirit of the hospitable hosts and their delighted guests.

These beautiful private and public compliments to the profession created the most lively satisfaction, in view of the very handsome evidence they presented of the appreciation by the ladies of their medical attendants. Long may the ladies of Nashville receive and enjoy their respect and esteem.

EAST TENNESSEE SURGICAL REPORTS.

Desirous of urging our professional brethren to a compliance with the resolutions of the East Tennessee Medical Society, we re-publish the circular of the committee in this number.

If it will be any encouragement to others, we will state that the chairman of the Committee has received Reports of the following operations for insertion in the report: 1. Exsection of a portion of the lower maxillary bone, by W. H. Deadrick, of Athens Tenn., originally published in the *Philadelphia Medical Recorder*, 1823. 2. Case of psoas abscess. 3. Case of Colle's fracture of radius. 4. Case of concussion of brain following a severe blow on head. 5. Case of abdominal abscess. 6. Case of retention of urine arising from coagula of blood in the bladder. 7. Case of carbuncle. 8. Use of anæsthesia in surgery. 9. vesico-vaginal fistula. 10. Extirpation of the uterus and its appendages, with perfect recovery of the patient. 11. Operation for lithotomy—the calculus being of extra large size.

As the labor of classifying will necessarily require some time, it is earnestly desired that medical gentlemen will forward their cases as early as possible.

TO THE MEDICAL PROFESSION IN EAST TENNESSEE.

At the late session of the East Tennessee Medical Society the undersigned were appointed a committee to prepare a Report on the History

of Surgery in East Tennessee. In the discharge of this duty, they beg leave to place before each member of the profession this circular setting forth the object of the task assigned them.

They desire to collect condensed statements of all surgical operations of a remarkable character. These they will arrange according to the various organs affected, and prefix each class with such general remarks as may be deemed necessary. It will be thus seen that if the Report can be made it will be in fact the clinical surgery of East Tennessee. They cannot however perform this duty unless the profession transmit to them notes of their cases. And they desire to state that every case reported will be accompanied with the physician's name and residence. We are aware that many have not preserved notes of their cases, but we earnestly request them to recall to mind the prominent facts and transmit them. It is designed that this Report shall embrace all the past as well as the present, and we hope that our physicians will at once forward such notes as they may have by them.

The following are some of the subjects which will be embraced in the report:

1. Cases relating to abscesses, ulcerations, gangrene, carbuncles, burns, &c., and their treatment.
2. Cases relating to cancerous growths—characters and treatment.
3. Cases relating to poisoned wounds, from serpents, rabid animals and dissections.
4. Cases relating to gunshot wounds, tetanus, &c.
5. Fractures—mode of treatment and results.
6. Dislocations—characters and results.
7. Amputations—and results.
8. The use of anæsthesia—what article, in what quantity and with what results.
9. Cases relating to calculi in bladder.

Other subjects might present themselves and the desire of the committee is to obtain full accounts of every important surgical case, embracing age, sex, date, habits of individual, treatment and results.

All reports of cases intended for the above purpose should be forwarded as early as possible to the *chairman of the committee at Knoxville, Tenn.*

The importance of this Report is evident to all. It will be the means of preserving many cases of remarkable character, and the whole being embraced in one report, which if all, who can, will contribute to it, will be somewhat voluminous, it will be a striking evidence of the talent and skill of East Tennessee surgeons.

RICHARD O. CURREY, *Chairman.*
JOHN M. BOYD.
BENJAMIN FRANKLIN.

N. B.—The committee would express their gratification at the promptness with which several medical gentlemen have already responded to the call of the committee. And as the report *will* be made, it is very desirable that *all* who have had important surgical cases to treat should have a hearing in it.

AMERICAN SYSTEM OF MEDICAL INSTRUCTION.

In our next number we propose giving our views on the above subject, contemplated in the resolutions introduced by us, and which were adopted, by the American Medical Association. Parliamentary usage, as well as courtesy, would have entitled us to a place on the committee, being the mover of the resolutions, but that privilege was not extended to us by the Committee on Nominations.

Though it would have pleased us to have composed one of that committee—as it is a subject to which our mind has been turned for some time and as the resolutions were our own, we are not disposed to let them go into the hands of strangers, one of whom is avowedly opposed to them, without giving to them that outside influence, which we now, as an outsider, may possess. The pages of our Journal are our own and whatever may be their fate in the hands of a committee, whose sympathy for them can only be presumed, we will urge them with our pen to that degree which their paternity demands of us. Enough for the present.

VOLUME V

closes with this number. If our subscribers will turn to our prospectus on the last page of the cover they will see two lines reading thus:

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There remains then but this month of June for our *delinquent* subscribers to save the additional one dollar. *In the July Number we will send out all unpaid accounts, and don't be surprised to find that we claim Four Dollars.* We are surprised that so many have permitted their accounts to run on so long unsettled. Do you intend to pay or not? A few have returned the Journals sent to them, after taking it for the last two years—without even having paid anything. How many will promptly respond to this call before the six months is out? Three Dollars now forwarded will save the increased price after the first of July.

This number brings up all subscriptions paid in to this date. By referring to the list of remittances in each number, those who have not paid can see that their names are not there. May we not put you there in July? Say, yes, and act accordingly.

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M. J. BEARDEN.

January, 1857.

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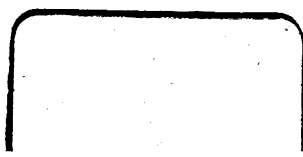
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